

ACC 159/PWU

10000/150/468

DRAINAGE
OCT. 19

10000/150/468

DRAINAGE OF MARSHES
OCT. 1944 - OCT. 1945

AC/159/PWU

DRAINAGE OF MARSHES

Folio No.	Name of Appointment	REFERRED TO	DEALT WITH	REFERRED TO	DEALT WITH	Is Date
7.	Major					17/12
8.	Major					17/12
9.	Adm. Gen.					17/12
10	Col. Lapp					17/12
11	Major					17/12
11	CC-8/1					17/12
17.	Col. Lapp					17/12
18	Major					17/12
19	Major					17/12

468

DRAINAGE OF MARSHES

Folio No.	Name or Appointment	REFERRED TO	DEALT WITH	REPORTED TO	SEALS WITH	Is Date
7.	Magill					2/11
8.						17/12
9.	Adm Gen					17/12
10	Col Lapp					2/11
11						17/12
11	C.C. 8/11					17/12
17.	Col Lapp					17/12
18						17/12
21	Magill					17/12
22						17/12
24	Dire					17/12
24	Adm					17/12
25	Col					17/12

10000 150

468

THIS FOLDER
CONTAINS PAPERS
FROM OCT - 44
TO OCT - 45
CATALOGUE.

159

11

Tel. 215

OP/gp

RECEIVED
P.W. & U. S/C A.C.
19 OCT 1945 159

HEADQUARTERS ALLIED COMMISSION
APO 394
AGRICULTURE SUB-COMMISSION

AGR/871

18 October 1945

SUBJECT: Land Reclamation

TO : Director, Public work and Utilities Sub-Commission

1. Reference is made to our AGR/871 of 6 Aug. 45.
2. The Ministry of Agriculture, on the basis of information received from Genio Civile and Compartmental Inspectorates of Agriculture, has furnished the data that are summarized in the attached table.
3. In consideration of the importance of agricultural production in connection with food problems in Italy and with the importation of supplies into this country it is recommended that Italian land reclamation projects be granted priority in getting surplus Army materials to be used for repair or reconstruction of bridges where land is now inaccessible and for the reactivation of the land reclamations where there is likelihood of floods.
4. This Sub-Commission is ready to put at your disposal all the details concerning the data shown in the attached table, and to supply other information you may require on the subject.

J. M. Merritt
JAMES M. MERRITT
Director

Inclosure:
Table as above

2156

T A B L E

1. of bridges, lighters, motors, pumps and other materials required for the reactivation of bonifiche in the territory under Italian Administration;
2. of areas inaccessible for lack of bridges;
3. of areas subject to eventual flooding for lack of machinery or fuel at the pumping stations;

(Data supplied by the Ministry of Agriculture and Forests, Inter-ministerial Committee for Land Reclamations and Irrigations.)

Province	Bridges	Lighters	Area inaccessible Ha.	Motors	Pumps	Excavators	Coal	Naphta	Area Subject to Flood Ha.
FERRARA	45	6	190 (1)	-	40	-	2,000	14,000	9
BOLOGNA	12	-	-	-	-	-	-	-	-
RAVENNA	22	-	-	-	5	-	-	-	-
FIRENZE	15	-	3,000	2	-	-	-	-	-
GROSSETO	7	-	-	-	4	-	-	-	1,100
LIVORNO	5	-	-	-	2	-	-	-	-
PISA	1	-	-	3	2	-	-	-	-
ROMA	8	-	1,500	-	-	-	-	-	-
LATINIA (2)	-	-	-	2	-	-	-	-	-
CHIETI	3 (3)	-	1,220	-	-	-	-	-	1,450
PESCARA (4)	5	-	-	-	-	-	-	-	-

T A B L E

of bridges, lighters, motors, pumps and other materials required for the reactivation of bonifiche in the territory under Italian Administration;

of areas inaccessible for lack of bridges;

of areas subject to eventual flooding for lack of machinery or fuel at the pumping stations;

(Data supplied by the Ministry of Agriculture and Forests, Inter-ministerial Committee for Land Reclamations and Irrigations.)

Lighters	Area inaccessible Ha.	Motors	Pumps	Excavators	Coal	Naphta	Area Subject to Floods Ha.	Remarks
6	190 (1)	-	40	-	2,000	14,000	9	(1) The area indicated is referred to only two of the 45 bridges required
-	-	-	-	-	-	-	-	
-	-	-	5	-	-	-	-	
-	3,000	2	-	-	-	-	-	
-	-	-	4	-	-	-	1,100	
-	-	-	2	-	-	-	-	
-	-	3	2	-	-	-	-	
-	1,500	-	-	-	-	-	-	
-	-	2	-	-	-	-	-	(2) 4 transformers required
-	1,220	-	-	-	-	-	1,450	(3) to be repaired
-	-	-	-	-	-	-	-	(4) Four to be repaired, one to be rebuilt. In Chieti & Pescara 20,000 s.m. of metallic nets are required for embankments

BOLOGNA	12	-	-	-	-	-	-	-	-
RAVENNA	22	-	-	-	5	-	-	-	-
FIRENZE	15	-	3,000	2	-	-	-	-	-
GROSSETO	7	-	-	-	4	-	-	-	1,10
LIVORNO	5	-	-	-	2	-	-	-	-
PISA	1	-	-	3	2	-	-	-	-
ROMA	8	-	1,500	-	-	-	-	-	-
LATINIA (2)	-	-	-	2	-	-	-	-	-
CHIETI	3 (3)	-	1,220	-	-	-	-	-	1,4
PESCARA (4)	5	-	-	-	-	-	-	-	-
NAPOLI (5)	35	-	16,000	1	-	-	-	50	-
SALERNO (6)	-	-	-	-	-	3	-	-	-
CAMPOBASSO	-	-	-	-	-	1	-	-	-
CASERTA (7)	20	-	-	3	-	-	-	-	-
CATANIA	3	-	20,000	-	-	-	-	-	-
PALERMO	1	-	3,360	-	-	-	-	-	-
TRAPANI	1	-	12,000	-	-	-	-	-	-

-	-	-	5	-	-	-	-
-	3,000	2	-	-	-	-	-
-	-	-	4	-	-	-	1,100
-	-	-	2	-	-	-	-
-	-	3	2	-	-	-	-
-	1,500	-	-	-	-	-	-
-	-	2	-	-	-	-	(2) 4 transformers required
-	1,220	-	-	-	-	-	(3) 6 to be repaired
-	-	-	-	-	-	-	(4) Four to be repaired, one to be rebuilt. In Chieti & Pescara 20,000 s.m. of metallic nets are required for embankments
-	16,000	1	-	-	-	50	(5) Plus 33 gang-planks for the bonifica of Licola
-	-	-	-	3	-	-	(6) One of the excavators must be floating
-	-	-	-	1	-	-	-
-	-	3	-	-	-	-	(7) Nine electric transformers are required
-	20,000	-	-	-	-	-	-
-	3,360	-	-	-	-	-	-
-	12,000	-	-	-	-	-	-

Tel. 317

HEADQUARTERS ALLIED COMMISSION

LWL/ac

INTER OFFICE MEMO

51

159/PWU

25 September 1945

Subject : Recovery of pumping units
Pontine Marshes

To : AGRICULTURAL SUB-COMMISSION, AC
from : P. Wks. & U. Sub-Commission

1. Attached letter from the Consorzio della Bonificazione Pontina requesting assistance in locating certain pumping units which were removed by the Germans is transmitted to you for necessary action.

2. Since this equipment is the property of a user of electricity and not a producer it does not come within the province of P. Wks & U. S/C.

for [Signature]
GEORGE F. PARKER
Lieut-Colonel, Inf.
Chief, Elec. Div.

Enclosures

ltr 8/9/45 - from Bonificazione Pontina
photograph - pumping unit.

2151

see folio 50

TRANSLATION

By : C.Tatti/ct

CONSORZIO DELLA BONIFICAZIONE PONTINA
(Pontine Land Reclamation Corporation)

8 Sep 45

To : Chief Allied Commission.

Further to our 1331 dated 1 Sep 45, requesting your assistance for tracing the 7 500 HP electric motors removed by Germans from the water raising station of Mazzocchio at the end of 1943. We have now learned from a workman of this area, who has just returned from prison in Germany, that he has seen several times, during last winter and spring, the above mentioned motors lying on the ground at the railways station in Dresden, near three destroyed waggons. The workman is a reliable character, and, as he had often worked near Mazzocchio Pumping Station, his statement can be trusted.

We enclose herewith a picture showing external dimensions of the motors - will the Allied Authority please give their kind assistance for a possible recovery ?

Truly yours,

/s/ Ingegnere Terzi
General Manager.

note - might try H.C. for a letter to a Germany in this 1945

Tel. 489081
Ext. 262

HEADQUARTERS ALLIED COMMISSION
APO 394
AGRICULTURE SUB-COMMISSION

JMM/nmc

AGR/871

8 AUG 1945 159

6 August 1945

SUBJECT: Agricultural Land Reclamation

TO : Director, Public Works and Utilities Sub-Commission

1. On August 1 the above subject was discussed with representatives of the Italian Government in connection with a program which has been drafted to indicate the war damage suffered and the need for action to establish reclaimed, drained and irrigated land on what is considered to be a normal basis. The program under discussion by the interested Ministries involve an estimated 5 billion lire.

2. I have indicated that the Agriculture Sub-Commission cannot actively interest itself in such a long-range program, as is apparent from the amount of money involved. However, the needs of agricultural land reclamation were discussed from a short-range standpoint, as I subsequently outlined briefly to you. With your concurrence, I am asking the Ministry of Agriculture, in Italian territory, and the Regional Agricultural Officers, to obtain information as outlined below. Then action will be taken to effect the necessary repairs in AMG territory, and to assist in locating the materials necessary to make such repairs in Italian Government territory.

a. Bridge Construction Necessary.--Agricultural land which is not now accessible for farming purposes, by bridge or boat, must be mapped so as to indicate the area involved and the minimum bridge construction needed to permit the land to be worked. Such maps should be indorsed by the Genio Civile as being accurate.

b. Drainage of Agricultural Land.--Agricultural land, which is now dry but which will be flooded by the normal autumn rains unless additional work is completed on the necessary pumping stations, must be mapped indicating the area involved and specific repairs required, and the date at which the repairs must be completed in order to prevent flooding by normal rainfall. This information should also be verified by the Genio Civile. (It is assumed that all land now flooded is receiving continuing attention.)

- 2 -

3. With regard to the clearing of canals or repair of dikes, and especially in regard to the provision of fuel for operating pumping stations, I have explained to the Ministry of Agriculture that requests should be presented to the Provincial or Regional AMG Officers concerned, rather than to this Headquarters. In the event that urgent needs are not supplied, we will of course appreciate a full report for such further action as may be practicable.

4. I am sending copies of this letter to the Regional Agricultural Officers concerned. They will obtain the details outlined in Para 2 a. and b. on or before August 20th in regard to AMG areas. I am asking the Italian Government to supply essentially the same information on or before September 1, for our further guidance.

J. M. Merritt
JAMES M. MERRITT
Director

Distribution:

Regional Commissioners -
Venezia, Liguria, Lombardia
and Piemonte Regions;
SCAO, Venezia Giulia (For Info.)
Attn: Agricultural Officers
Economic Section

2151

Tel. 459081,
Ext. 262

JMM/cas

HEADQUARTERS ALLIED COMMISSION
APO 394
AGRICULTURE SUB-COMMISSION

AGR/871

7 August 1945

SUBJECT: Agricultural Land Reclamation

TO : Regional Commissioners - Venezia, Liguria, Lombardia,
Piemonte Regions
SCAO - Venezia Giulia Region (for information)
Attention: Regional Agricultural Officers

1. Reference is made to the attached copy of letter, subject as above.
2. It is requested that action be taken to obtain the information outlined in para. 2a and 2b thereof, to be forwarded to this Sub-Commission on or before 20 August. When transmitting the information please comment by endorsement hereon as to the urgency and action being taken.

By Command of Rear Admiral Stone:


JAMES N. MENRICE
Director

Enclosure:
AGR/871, 6 Aug 45

Distribution:
Economic Section
Public Works & Utilities
Sub-Commission

Tel. 489081.
Ext. 262

JMM/eam

HEADQUARTERS ALLIED COMMISSION
APO 394
AGRICULTURE SUB-COMMISSION

AGR/871

7 August 1945

SUBJECT: Agricultural Land Reclamation
TO : Ministry of Agriculture

1. On 1 August the above subject was discussed with Dr. Mussarini and Prof. Sullam. It was decided that the immediate requirements of the situation can be met if the following information were made available:

- a. Bridge Construction Necessary - Agricultural land which is not now accessible for farming purposes, by bridge or boat, must be mapped so as to indicate the area involved and the minimum bridge construction needed to permit the land to be worked. Such maps should be endorsed by the Genio Civile as being accurate.
- b. Drainage of Agricultural Land - Agricultural land, which is now dry but which will be flooded by the normal autumn rains unless additional work is completed on the necessary pumping stations, must be mapped indicating the area involved and specific repairs required, and the date at which the repairs must be completed in order to prevent flooding by normal rainfall. This information should also be verified by the Genio Civile. (It is assumed that all land now flooded is receiving continuing attention.)

2. Arrangements are being made for this information to be obtained in Allied Military Government territory on or before 20 August, and it is requested that the same information be obtained on or before 31 August, from benifici in Italian Government territory.

3. Upon receipt of the information indicated, the matter will receive the attention of the Allied Commission, with action to effect emergency installations in Allied Military Government territory and to assist in locating the necessary materials needed for other areas. Your early attention in the matter will be appreciated.

Distribution:
Economic Section
Public Works & Utilities
Sub-Commission

JAMES M. MERRITT
Director

21/9

DF Tel. 478307
P.W. & U. S. S. C.
6 JUL 1945 159
AGF/871

HEADQUARTERS ALLIED COMMISSION
APO 394
AGRICULTURE SUB-COMMISSION

HMB/mmc

48

6 July 1945

SUBJECT: Societa per la Bonifica dei Terreni Ferraresi
e per Imprese Agricole

TO : Public Works and Utilities Sub-Commission

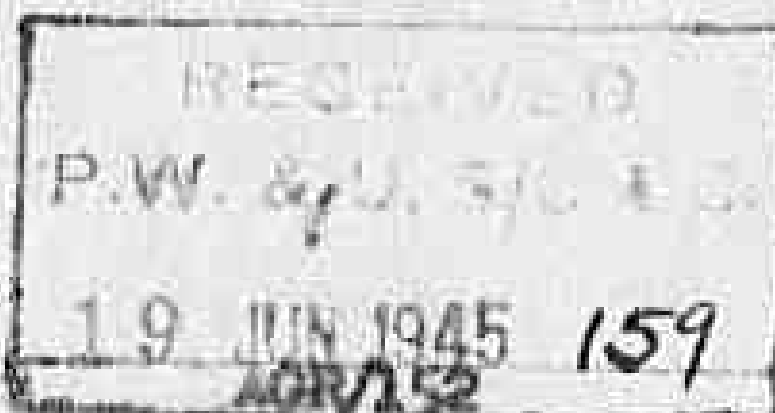
1. Attached letter No. 47506 dated 3 July 1945 from the Bank of Italy was sent to us by the Finance Sub-Commission. We are turning it over to you for such action as you deem necessary.

J. Bennett
JAMES H. MERRITT
Director

Enclosures:
Letter as above &
attached report

Attachments inside cover:
Societa per la Bonifica dei
Terreni Ferraresi e
per Imprese Agricole
Referred to Emilia Region
for investigation
2/7/43
ms

Tel. 489081,
Ext. 262



HEADQUARTERS ALLIED COMMISSION
APO 394
AGRICULTURE SUB-COMMISSION

JHM/cca

47

18 June 1945

SUBJECT: Employment of German POWs

TO : Regional Commissioner, Emilia Region
Attention: Regional Agricultural Officer

1. On 9 June 1945, the Prime Minister wrote to the Chief Commissioner regarding the employment of German POWs, proposing among other assignments that they could be used in the lower part of the Po Valley near Comacchio for removing earth. Presumably, this is necessary in areas which were flooded when bonifica installation were damaged. The Italian Government suggested the use of 3,000 POWs in this work.

2. In preparation of a letter to AFM in order to establish the procedure for handling POWs in this work, it is necessary that we determine the exact location at which they will be required, and the numbers required at each location. We have been asked to collaborate with Public Health and Public Works & Utilities Sub-Commissions in obtaining this information. Accordingly, may the information regarding the Comacchio area be forwarded as soon as possible.

By Command of Rear Admiral Stone:

J. M. Mergitt
JAMES M. MERGITT
Director

Distribution:
Economic Section,
Supply Division
Public Health Sub-Commission
Public Works & Utilities
Sub-Commission

Sub
W

2147

Tel. 489081,
Ext. 262

JMA/cms

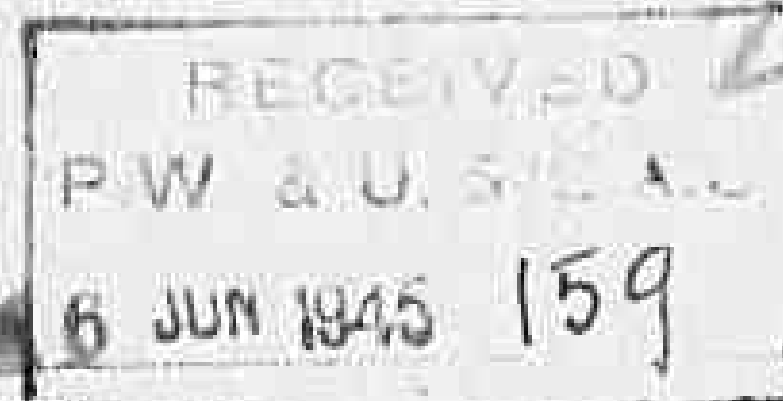
HEADQUARTERS ALLIED COMMISSION
APO 394
AGRICULTURE SUB-COMMISSION

AGR/871

14 June 1945

SUBJECT: Responsibilities of Agriculture Sub-Commission for Bonifica Operations

TO : Regional Commissioner, Emilia Region
Attention: Major A. R. Bough



1. Reference is made to our today's discussion of above subject and our 9722 of 14 June, your 8206 of 8 June, and letter AGR/23.14 of 12 June.

2. In view of the fact that physical damage to bonifica installations in the North is not as great as might have been anticipated, it is agreed that the responsibilities of Agricultural Officers as indicated in paragraph 1 of AGR/23.14 do not necessitate the further assignment of Capt. Ault to the specific job of reactivation of critical bonifica areas, as in Ravenna and Ferrara Provinces, etc.

3. While no doubt Capt. Ault will be able to render valuable service in your Region in view of his knowledge of bonifica operations, it is agreed that it is entirely practicable to depend upon Public Works & Utilities Sub-Commission and Regional Public Works Officers for physical rehabilitation, drainage, etc. In the event that any of the specific bonifica developments is not effectively handled by this procedure, the Regional Agricultural Officers should so indicate in their reports, and the matter will be referred to the Public Works & Utilities Sub-Commission for appropriate action.

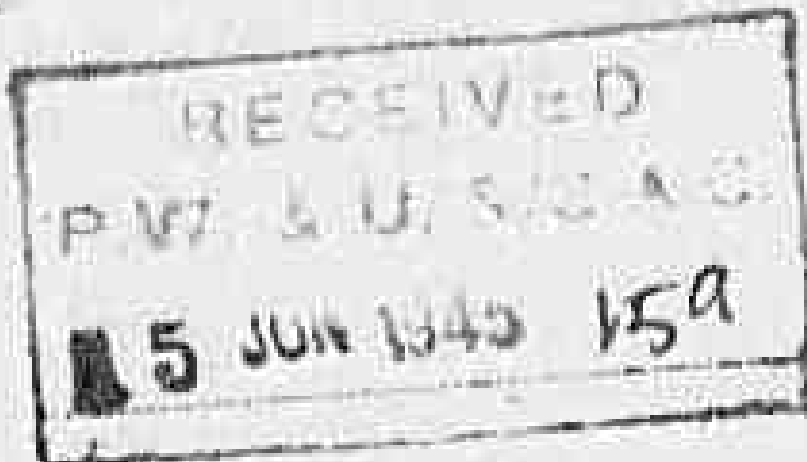
By Command of Rear Admiral Stone:

J. W. Merritt
JAMES M. MERRITT
Director

Distribution:

Capt. Ault
Public Works & Utilities S/C
RC, Venezia Region
RC, Lombardia Region)
RC, Liguria Region) through AAG 5 Army
RC, Piemonte Region)

2148



03
file 45

FOR ACTION AND EMILIA REGION

9722

14 June 1945

ROUTINE

RESTRICTED P D

PARA ONE PD REFERENCE YOUR SIGNAL EASY TWO ZERO SIX OF EIGHT JUNE ONE NINE FOUR FIVE PD
PARAS TO FOR ACTION AND EMILIA REGION FROM HQ ALCON CITE AGAON PAREN

PARA TWO PD ACTUAL CONSTRUCTION AND REPAIR OF BONIFICA INSTALLATIONS AND MACHINERY
IS A RESPONSIBILITY OF PUBLIC WORKS AND UTILITIES SUBCOMMISSION PETER ITEM CHARLIE PD
PARA THREE PD BAKER AND CHARLIE OF LETTER AGR TWO THREE ONE FOUR DATED TWELVE JANUARY
FOUR FIVE SUBJECT RESPONSIBILITIES OF SUBCOMMISSIONS FOR BONIFICA OPERATION PD

COPY TO: ECONOMIC SECTION
PUBLIC WORKS AND UTILITIES

46 pages noted by Col Thompson
14/6/45

2145

SUB-COMMISSION

262

JAMES M. MERRITT

Tel. 489081. Ext. 339

HEADQUARTERS ALLIED COMMISSION
APO 394
Public Works and Utilities Sub-Commission

RWS/rlv

159/PWU

7 June 1945

Subject: Flood Control - Bologna.

To : Regional Commissioner, Emilia
(Att: Regional Engineer).

1. Attached is copy of letter received from Assicurazioni Generali with reference to flood control work on the rivers Sillaro and Idice.

2. Will you please have this matter investigated and ensure that corrective action is taken where possible.

By Command of Rear Admiral STONE:

V.S. THOMPSON
Lt. Col. R.C.E.
Chief, Public Wks. Div.

2144

RESTRICTED

V. Doll.
43

E/206
JUN 081750B

RECEIVED
P.W. & U. S/C A.C.
9 JUN 1945 159

E/4214
JUN 082145B
ROUTINE

AND EMILIA REGION
HQ ALCOON CITE ALCOO

EJR

RESTRICTED.

To settle allocation of duties and personnel, please state unequivocally whether actual construction and repair of BONIFICH installations and machinery is the responsibility of Agriculture or Public Works and Utilities Sub-Commission.

DIST

ACTION: Econ Sec 2
INFO: Chief Commissioner
Agric S/C
P. Works S/C
File 2
Float

HEADQUARTERS
9 - JUN 1945
S/C.

*McNutt
called & matter
discussed
EJR*
46 Refuse

2143

RESTRICTED

circa di risone - di ettari 180 di barbabietole da zuc-
chero per quintali 50.000 circa - le produzioni del pomo-
doro e di altre culture minori.

- Ma purtroppo ulteriori pericoli gravano sull'azienda e
sulla zona tutta per il fatto che gli argini dei fiumi Sil-
laro e più particolarmente Idice, sono stati dai tedeschi
approntati a difesa scavando in essi, postazioni per armi
varie, elementi di trincea, camminamenti ecc. indebolendone
la struttura e mettendoli così in condizioni di non poter
contenere le acque dei fiumi che nel corso di piene, al-
lagherebbero vaste superfici di terreni intensamente colti-
vati.
- Per quanto le competenti Autorità della Provincia di Bolo-
gna, si stiano occupando del problema, sarebbe di somma uti-
lità l'interessamento di cotesta Superiore Direzione allo
scopo di accelerare i lavori necessari per mettere in pri-
stino stato gli argini dei suddetti fiumi Sillaro ed Idice
e diminuire così la probabilità dei danni che dagli allaga-
menti potrebbero derivare.

Con tutta osservanza.

ASSICURAZIONI GENERALI

[Handwritten signature]



RECEIVED
P.W. & U. S/C A.C.
31 MAY 1945 159

HEADQUARTERS EMILIA REGION
ALLIED MILITARY GOVERNMENT
APO 394
Public Works and Utilities

WMS/pc.

28 May 1945

Reference: RIX/PU/11

Subject : Pump station situation an Bonificas.

To : Director, Public Works & Utilities Sub-Commission
Hq. Allied Commission
APO 394

39.

Ref signal 8491 dated 26 May 1945 following information is forwarded:

Total Bonificas covered in following data are for the provinces of Bologna and Ferrara, the most vital area being in the vicinity of Ferrara province and in particular Codigoro.

All pumps Codigoro were damaged and are in process of being repaired. This will necessitate the pulling down of various parts and shipping to Milano for repairs. This work is underway.

The Bonifica is calling in specialists to go over electric motors to determine repairs needed.

Projects are being sent in for emergency repairs to banks of Po river all along the Regional boundary.

Complete data will be forwarded as soon as it can be compiled.

For the Regional Commissioner.

Wm. Span
WILLIAM M. SPAN
Lt Col. AUS
Regional Engineer Officer

2143

DAMAGES TO THE PUMPS - STATIONS =====

ASSOCIATION=	TOTAL SURFACE=	SURFACE SERVED=	NUMBER OF=	DAMAGES
	HECTARES	WITH PUMPS=	PUMPS	
		HECTARES		
CONSORZIO TERRE VECCHIE=	23.000	16.800	4 pumps and motors	electric line damaged
			1 pump	efficient
			4 pumps	not efficient/ it is needed a starting motor of HP Kw 840 Cycl 42
CONSORZIO CAVO TASSONE	4.289	=====	=====	=====
CONSORZIO MANUTENZIONE IV CIRCONDARIO	7.000	1.200	3 pumps 3 pumps 1 pump	efficient 1 efficient 2 not efficient stolen
CONSORZIO III CIRCONDARIO	19.000	=====	=====	=====
CONSORZIO GRANDE BONIFICA FERRARESE	55.000	55.000	seven pumps= stations	all the pumps are out of service for damages to the motors and boilers.
CONSORZIO II° CIRCONDARIO POLESINE= S. GIORGIO	50.000	36.500	5 pumps= stations	mechanical and electrical part damaged for 2/3

15% damages to mech. part
30% to the buildings

destroyed until the basement
buildings damaged for 1/5

= F E R R A =

ASSOCIATION	TOTAL SURFACE HECTARES	SURFACE SERVED WITH PUMPS HECTARES	NUMBER OF PUMPS	DAMAGES
CONSORZIO DI BONIFICA- GA- IAVRONARA FOR- CELLO- TRAVA	2.800	2.800	two pumps stations 2 pumps with Diesel motors 4 pumps with 2/2 pumps Diesel motors / destroyed and /2 Diesel motors	Destroyed
CONSORZIO BONI- FICHE ARGENTANE	14.750	14.750	4 pumps stations 4 pumps with 4 Diesel motors / 3 pumps 3 pumps with 3 Diesel motors / 2 pumps 3 pumps with 3 Diesel motors / 2 pumps 2 pumps with 2 Diesel motors / 2 pumps	3 pumps with Diesel motors destroyed 30% damaged
CONSORZIO BONI- FICA DI MESOLA	11.000	11.000	five pumps- stations	=====
CONSORZIO BONI- FICA VALLE ISOLA	5.848	4.306	1 pumps-stations/ with three pumps/as	The building destroyed

- B O L O G N A -

ASSOCIATION=	TOTAL SURFACE HECTARES	SURFACE SERVED WITH PUMPS	NUMBER OF PUMPS	DAMAGES =
CONSORZIO BONI- FICA RENANA	90.089	41.809	2 pumps stations/ with 6 pumps and 3 pumps.	1 pump damaged at Salarino. The 100% of electric part damaged. The 20% of the Salarino building.
CONSORZIO BONI- FICA CREVALCORE	43.170	14.978	1 pumps station with 5 pumps	No damages
BONIFICA RENO- SAMOGGIA	17.000	7.800	1 pumps station with 3 pumps	No damages

Ext. 262

HEADQUARTERS ALLIED COMMISS
APO 394
AGRICULTURE SUB-COMMISSION

IGA/mmc

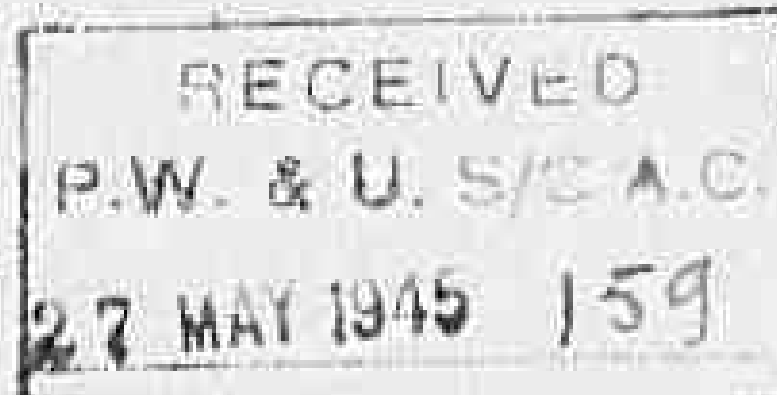
40

AGN/B71.

26 May 1945

SUBJECT: Bonifica

TO : Brig. Gen. McKinley



1. Attached is a report from Capt. C. H. Ault who has just completed a preliminary but relatively complete survey of the Bonifica work in all regions of North Italy and has coordinated this with the knowledge of Prof. A. Sullas, the Bonifica expert of the Ministry of Agriculture, for the requirements in Southern Italy.

2. This report indicates the need of 141 large pumps and motors for all Italy. These should be called forward immediately to avoid serious malarial conditions and provide an additional 45,000 to 50,000 hectares of agricultural land for early fall seedings for next year's food production.

3. Special effort should be made to impress the importance of this share of our December requisition for 200 pumps being called forward by AFHQ at once.

LELAND G. AHEAUGH
DirectorEnclosure:

Capt. Ault's Report

Distribution:Mr. A. G. Antolini
Public Works S/C

2137

BONIFICA SURVEY - NORTH ITALY

Following is a list of units (pumps and motors) which, according to information from the survey just completed, will be necessary in Italy:

<u>location</u>	<u>No. of Units</u>
Ferrara Province	100
Venezia Region	12
Ravenna Province	10
Littoria Zone	10
Volturno	6
Fondi (S. of Terracina)	3
	<u>141</u>

Figures were based on the total capacity of the pumping stations not immediately repairable, and figuring one motor and pump unit for each 1,000 liters of pump capacity for those irreparable.

Since the pumping stations considered were only those which cannot be repaired before fall rains set in, and that capacity of pumps ordered is below 1,000 liters, the number of pumps is considered absolute minimum.

With the exception of the 19 units listed for the Littoria zone, Fondi and Volturno, the pumping units are urgently needed as assurance against malaria in these zones where there still are, or quite likely will be, large numbers of Allied troops or German prisoners.

In event of heavy rains there is also a strong possibility of interference with traffic on the principal highways through these zones and a material reduction in next year's crop yield from flooding which would interfere with fall planting.

The Tosi factory near Milano which has built a very high percentage of the pumps and diesel motors throughout Italy is still intact and could start work immediately to replace these destroyed plants. However, there are several factors which will take time to overcome and therefore would prevent the construction of machinery and its installation soon enough for the coming rainy season. These factors are:

1. Working out a system of financing, the cost of which will be high at this time.
2. Locating coke, obtaining a release for and transporting it to the Tosi factories. There is no coke at the factories now.

2136

- 2 -

3. Two to three months are necessary according to Tosi engineers for building models or dies, casting the pumps and completing necessary machine work on each. They would of course work on several units at once.
4. The time necessary for installation of the unit.

Considering the possible time lag on any one or the combination of all of the above factors, it would be "supreme optimism" to expect Italian firms to manufacture and install these units for this season's work. Therefore we request that a minimum of 141 motor and pump units included in Requisition No. MKC-260-ENG for 200 be forwarded at the earliest possible date.

C. H. Ault,
Capt. C.E.

2135

File 159

39

AMG EMILIA REGION

8491

26 May 45.

Priority

RESTRICTED PD

SUBJECT IS FLOODING PD

PAREN TO AMG EMILIA REGION FOR REGIONAL ENGINEER FROM

HQ ALCOM CITE ACPWU PAREN

PARA ONE PD CAN YOU SEND REPORT CONCERNING FLOODING OF
BONIFICA OR DAMAGES TO PUMPING STATIONS AS QUICKLY AS POSSIBLE

41 refers

P.W. & U.S/G.

317

2134

Tel. 489081
Extn. 320

HEADQUARTERS ALLIED COMMISSION
APO 394
Public Works and Utilities Sub-Commission

LAJ/mc
38

27 March 1945

159/PWU.

SUBJECT : Status of Floods in Pontine Marshes.
TO : See distribution.

1. Report attached.
2. 82% of flooded area cleared.
3. Complete restoration of land expected shortly.

L.A. JENNY,
Colonel, C.E.,
Director.

Distribution :

Acting President, A.C.,
Chief Commissioner,
Executive Commissioner,
Economic Section,
American Embassy,
British Embassy,
P. R. B.,
Agriculture Sub-Commission.

File

2133

HEADQUARTERS ALLIED COMMISSION
APO 394
Public Works and Utilities Sub-Commission

27 March 45

REPORT ON THE PROGRESS OF
CLEARING THE PONTINE MARSHES
OF FLOODS CAUSED BY THE GERMANS.

The area that commonly goes by the name of the Pontine Marshes and which became widely known from the publicity given to its extensive reclamation during the "Era Fascista" comprises two main drainage zones: the "Bonifica di Littoria" and the "Bonificazione Pontina". Both are within the Province of Littoria, and together they comprise the coastal plain from Torre di Fede Verde (near Anzio) to Terracina. Through these two zones, in an almost straight line from Cisterna di Roma to Terracina, which lie at opposite extremities of the area, runs the Via Appia, or Route 7.

The Bonifica di Littoria covers an area of 49,152 hectares (121,455 acres). In general level it is the higher of the two zones, and its drainage to the sea is effected mainly by gravity. The Bonificazione Pontina has an area of 26,375 hectares (65,172 acres) and its drainage to the sea can largely be accomplished only by pumping.

The sabotage done by the Germans was extensive, scientific and thorough; and was quite evidently aimed at more than the mere creation of military obstacles, for it was also, clearly devised with a view to reducing the agricultural production to a minimum and to increasing the spread of malaria, both of which purposes could be served simply by flooding as much as possible of the reclaimed marsh land. The sabotage was perpetrated in the following ways :-

2132

- (1) - By constructing a dam across the harbor channel of Porto Badino, and by sinking vessels in the harbor. This harbor forms the mouth of the River Anaseno, one of the principal drainage watercourses of the Bonificazione Pontina.
- (2) - By demolishing bridges over drainage channels, so that the debris would block them.
- (3) - By destroying the flood control gates at Ponte Maggiore.
- (4) - By damaging pumping plants and by removing from the area most of the electric motors, transformers and other electrical equipment of the pumping stations. In this way about ninety per cent of the pumping plant was rendered unusable, leaving only units of minor value.
- (5) - By destroying the electric power distribution lines to the pumping stations.

When the territory had fallen into Allied hands little time was lost in tackling the problems which it presented. First and foremost it was necessary to mitigate the inevitable increase in the malaria rate. Speaking both of the Pontine Marshes and of the Agro Romano areas, Col. Paul F. Russell, Chief Malariaologist of the (then) Allied Control Commission, in September 1944 said :-

" The season of maximum malaria-mosquito breeding had arrived before the area could be entered by the ACC. Mines, booby traps, lack of transport, complete disruption of civil organization, the return of infected refugees, the destruction of screening. These and other factors have made it impossible to carry out more than palliative measures ".

These palliatives consisted principally in spraying or dusting the flooded areas with larvaceides, which was done partly by aeroplane, and in distributing to the civil population over five million tablets of ATABRINE (also known as MEFACRINE);

but they also included such immediate operations for alleviation of flooding as could be put in hand by manual labor without the use of mechanical plant. Weed cutting was also intensively resumed. The beneficial effects of all these measures cannot be over-emphasised, but they have already been adequately related elsewhere. At the same time, however, it was necessary to embark immediately upon the larger engineering works necessary to restore the disrupted drainage.

Credit must be given to the civil authorities for the promptness and eagerness with which they put forward their detailed schemes, in the submission of which they were assisted and encouraged to the utmost by AC officers. Mine fields, which made the work hazardous and difficult, especially at Porto Badino, had to be cleared with the minimum of delay. Concurrently, schemes were put in hand for demolishing the dam across the harbor of Porto Badino, for removing all debris obstructing the many drainage channels, for constructing by-pass channels around certain inoperable pumping stations and for dredging operations to remove the accumulated silt. Then followed schemes for renewing the demolished flood gates and for reconstructing the more important of the demolished bridges. Meanwhile the services of the Italian Royal Navy were enlisted for the salvaging of the sunken vessels in Porto Badino.

By substitution and repair of electrical and mechanical plant, a number of pumping stations - especially those that would best serve to prevent flooding of Route 7 - an important military highway - were restored to limited but effective operation.

At the end of May 1944 about 11,000 hectares (27,000 acres) of land were already under water and a very much greater area was threatened. By the end of September 1944, the inundated area had been reduced to about 5,500 hectares (13,500 acres) and by the end of October, as a result of the rehabilitation of some pumping stations and the beneficial effect of the provisional by-pass channels, it was little more than 3,000 hectares (7,400 acres).

2139

Late fall and winter floods had greatly increased this flooded area making it almost impossible to continue work, but work was resumed with effective results. Today there remain only about 2,000 hectares (5,000 acres) of land inundated, or only about 18% of the original flooded area.

Work on the rehabilitation of an old pumping plant is progressing and it is expected that, with good fortune, the entire area will be cleared of water in about 2 months.

The construction of by-pass channels and the clearance of obstructions in the channels and at the outlet to the sea involved an expenditure of about 50 million lire. In addition to this 26 bridges were rebuilt on roads of various priorities. There still remain 230 bridges to be rebuilt in that area.

While the work has been slow and tedious, because of inadequate equipment at our disposal and serious setbacks encountered due to new flood conditions this, nevertheless, marks an important achievement worth recording as the whole area may soon be turned back to cultivation and the serious malaria hazard will be removed.

L.A. JENNY,
Colonel, C.E.,
Director.

2129

Tel. 48908
Ext. 317

HEADQUARTERS ALLIED COMMISSION
APO 394
Public Works and Utilities Sub-Commission

WHL/ac

37

Reference : 159/PWU

26 March 1945

Subject : Bonifica Littoria and Pontina

To : MINISTRY OF PUBLIC WORKS
(Att Eng. A.ASTA)

- 1) - Attached is a copy of a letter dated 22 March 1945 which Lt.Col.Findley, Regional Engineer of Lazio Umbria Region, has sent to us in connection with the Bonifica of Littoria and Pontina.
- 2) - The letter is self explanatory, please let me know if there is any assistance which you require.

W.M.LAPPER
Lt-Colonel
Chief Elec. Div.

1 enclosure

see folio N° 35

2128

Tel. 489081 Ext. 320

HEADQUARTERS ALLIED COMMISSION
APO 394
Public Works and Utilities Sub-Commission

LAJ/ram

110/PWU

26 March 1945

SUBJECT: Appointment of Italian Engineers

TO : Regional Commissioner - Att'n: Regional Engineer
Piemonte Region.

1. The procedure to be followed in all forward
Regions is:

- (a) When you arrive in your Region you will immediately ascertain whether or not Italian Compartimento engineers, or engineers of large cities can be found and if so, if satisfactory from a political viewpoint, they are to remain in their posts.
- (b) If you find any vacancies as has been the case on numerous occasions when Compartimento engineers moved forward with the Germans, and you are unable to find qualified Italian engineers locally, you will promptly notify us and we will arrange to have a qualified engineer sent to you from the Ministry of Public Works.
- (c) Engineers of lower grade must be found locally and we have had no difficulty so far in finding lower grade engineers.
- (d) When we are asked to send forward an engineer from the Ministry of Public Works that man must remain in the position he is sent to occupy even though at a later date the Italian engineer who formerly occupied that post may return and may want to have his job back. If he cannot be found at the time you get there and you have to ask for some one to be sent the engineer when he returns simply is out of luck. We had to make that rule because of previous difficulties encountered.

By Command of Rear
Admiral STONE:

L. A. JERNY
Colonel, C. E.
Director

UN 24

HEADQUARTERS

ALLIED MILITARY GOVERNMENT
LAZIO UMBRIA REGION
(Engineering Division)

APO 394

RECEIVED

P.W. R.O. S.C.A.C.

23 MAR 1945 159

22 March 1945

TO : HQ. A.C. (P.W.GU) ✓

SUBJECT : Bonifica LITTORIA and PONTINA

IN REPLY QUOTE : R4/ENG/500.2

The Consorzio di Bonifica of PONTINA and also LITTORIA have made excellent progress in their projects but have still many difficulties to overcome with the Malarial season ahead and important agricultural possibilities if the pumps now repaired or being repaired can get electricity.

They may want help on the following in particular Consorzio PONTINA requires:

- (a) Materials to SRE to enable them to repair 60000 KWA line
CECCANO - PONTINA.
- (b) Increase of Energy from 500 KW to 1500 KW if they get that they can drain 5000 hectares of land in time.
- (c) 100 Quintals cement and 300 Quintals of round iron for Pumping Stations.
- (d) May have difficulty over getting transformers.

They have been told that all these must be pressed through Italian Channels now but with achievement so near and time before 1st May so short, a helping hand might make the difference of a crop or no crop and reduction in Malaria.

Copy to:

HQ. (A.C.) Agricultural Sub-Commission.

Regional Engineer

Lazio Umbria Region AMG.

Lt. Col. R.E.

2128

G.de CSE/ab

Co 3948

HEADQUARTERS

ALLIED MILITARY GOVERNMENT
LAZIO UMBRIA REGION
(Engineering Division)

ATO 3M

RECEIVED

P.W. & U. S/C A C

9 MAR 1945 159

8 March 1945

TO : HQ, Lazio & Umbria Region
(Attention Regional Commissioner)

SUBJECT : Finance for Consorzio Bonifica Littoria.

IN REPLY QUOTE : RA/RNO/500.2

1) Provision was made by Decree published in "Gazzetta Ufficiale" No 89 of 2nd December 1944 for financing works on Bonifica and from this (additional to the original projects of L. 48 million) L. 35 million was allotted to Bonifica Littoria. -

The normal procedure for a Consorzio is to borrow from the Banks the necessary funds to finance the works, on completion of works and after official inspection and approval of costs the money is disbursed by Treasury and Bank loan repaid.

Generally it works quicker than the method used for financing for Works done direct by Genio Civile. -

2) The Consorzio have reported verbally that the Banks are NOT prepared to lend money.

This was corroborated by Capo del Genio Civile when discussed with him today.

This appears to indicate a lack of confidence in the security behind the loan.

3) The new Decrees for repair of houses applicable in APC Territory as well as Italian Government Territory depend upon over L. 50,000 on Loans. If the lack of confidence also extends to that the scheme for any but the most minor repairs may not bring results.

4) Apart from the absence of funds for these parts of jobs which if not rectified will stop or NOT start the matter appears of sufficient general importance to be fully examined.

W. H. H. H.
Lt. Col. R. E.

SUBJECT : Finance for Consorzio Bonifica Littoria.

IN REPLY QUOTE : 84/SMO/600.2

1) Provision was made by Decree published in "Gazzetta Ufficiale" No 89 of 2nd December 1944 for financing works on Bonifica and from this (additional to the original projects of L. 48 million) L. 35 million was allotted to Bonifica Littoria. -

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Generally it works quicker than the method used for financing for Works done direct by Genio Civile. -

2) The Consorzio have reported verbally that the Banks are NOT prepared to lend money.

This was corroborated by Capo del Genio Civile when discussed with him today.

This appears to indicate a lack of confidence in the security behind the loan.

3) The new Decree for repair of houses applicable in AMG Territory as well as Italian Government Territory depend when over L. 50,000 on loans. If the lack of confidence also extends to that the scheme for any but the most minor repairs may not bring results.

4) Apart from the absence of funds for these parts jobs which if not rectified will stop or NOT start the matter appears of sufficient general importance to be fully examined.

COPY to: HQ. Lazio & Umbria (Finance)
→ A.C. HQ. (P.W. & U)

Indy
Lt. Col. R.S.
Regional Engineer
Lazio Umbria Region AMG.

Tel. 489081
Ext. 317

HEADQUARTERS ALLIED COMMISSION
Public Works and Utilities Sub-Commission
APO 394

LWL/ac

33

Reference : 159/PWU

10 March 1945

Subject : Cartiere Foggia (Paper Mills - Foggia)
To : REGIONAL COMMISSIONER UMBRIA-LAZIO REGION
(Attention Regional Engineer)

Ref. R4/Eng.600.2 - 6/2/45, PWU/159/ 19/2/45. (31)

- 1) - The Ministry of Industry, Commerce and Labour requests, per attached, that the electrical instruments should not be removed from the Foggia Paper Plant for the reasons given.

By command of Rear Admiral STONE,

W.M. LAPPER
Lt-Colonel
Chief Elec.Div.

1 enclosure

copy of letter Ministry of Industry 27/2/45

see folio 32

212



Tel. 478090

RSO/hh

Ref.: AC/5609/IND

8 March 1945

SUBJECT : Foggia Paper Mill
TO : Public Works & Utilities Sub-Commission
FROM : Industry Sub-Commission

1. Further to our letter AC/5609/IND,
dated 15 February 1945.

2. Enclosed copy letter of the Ministry
of Industry, Commerce and Labour stating the
impossibility to comply with the request of the
Engineering Division - Umbria-Lazio Region.

Copy to : -
Economic Section

W. S. VAUGHAN
W. S. VAUGHAN
Director,
Industry Sub-Commission

Encl. : -
copy of letter from Ministry
of Ind. Comm. & Lab. No 414/R
dated 28 Feb. 45.

W. S. VAUGHAN
W. S. VAUGHAN
9/3

2123

C O P Y

MINISTERO INDUSTRIA COMMERCIO E LAVORO
Direzione Gen. Industria e Miniere
Div. V/ind.

Roma, 28 Feb. 1945

Prot. Nr. 414/R

Alla COMMISSIONE ALLEATA
SOTTOCOMMISSIONE INDUSTRIA
e per conoscenza:
- ISTITUTO POLIGRAFICO DELLO
STATO - Industria Cellulosa
d'Italia - Piazza Verdi 10
= R O M A =

OGGETTO : Cartiera di Foggia.

1. - Si fa riferimento alla lettera AC/5609/Ind. del 19 febbraio 1945, riguardante la eventuale requisizione di strumenti elettrici (amperometri e voltametri) e di pompe della Cartiera di Foggia dell'Istituto Poligrafico dello Stato, da impiegarsi per lavori pubblici nella regione Lazio-Umbria.
2. - Al riguardo, si rileva che il materiale di cui trattasi è indispensabile per la completa ripresa dell'attività della predetta Cartiera, specie per quanto concerne il ripristino dell'impianto per la fabbricazione di cellulosa che consentirà di aumentare la produzione di carta attualmente basata, come è noto, esclusivamente sulla carta da macero di cui vi è scarsissima disponibilità.
3. - Si fa inoltre presente che alla predetta cartiera è stato già requisito altro materiale (taglietti), la cui mancanza ne ostacola la capacità produttiva.
4. - Si prega, pertanto, codesta Commissione di voler prendere in considerazione quanto sopra esposto, affinché il materiale di cui trattasi non sia asportato dalla Cartiera.
5. - Si gradirà avere cortese notizia delle determinazioni che saranno adottate al riguardo.

IL MINISTRO

G r o n c h i 2122

TRANSLATION

By : CT/ct

MINISTRY OF INDUSTRY, COMMERCE AND LABOR
General Directorate of Industry & Mines

27 February 1945

Reference : 414/R

To : Allied Commission - Industry Sub-Commission
& info. to : ISTITUTO POLIGRAFICO DELLO STATO - Italian
Cellulose Industry.
Subject : Foggia Paper Mill

1. Reference letter AC/5609/Ind. of 19 February 1945, concerning the eventual requisitioning of electrical instruments (ammeters and voltmeters) and of pumps from Foggia Paper Mill, of the Istituto Poligrafico dello Stato, to be used for public works in Lazio-Umbria Region.

2. We point out that the above mentioned material is necessary for the complete restoration of the activity of the said Paper Mill, specially so far as the rehabilitation of the cellulose producing plant is concerned. This plant will increase the production of paper, which is now manufactured, as it is known, exclusively from waste-paper, which is available only in very small quantities.

3. Other material (cutting machines) has already been requisitioned from the said paper mill, thus affecting its productive capacity.

4. We beg therefore this Commission to take the above into consideration, so that the said material is not removed from the Paper mill.

5. Please keep us informed as to the action taken on this matter.

THE MINISTER
Gronchi 2121

Tel. 478.906

Gen office
R.

RM/MS

HEADQUARTERS ALLIED COMMISSION
APO 594
Public Works and Utilities Sub-Commission

31

Reference : 159/PSU

19 February 1945.

SUBJECT : Foggia Paper Mill (Removal of Electrical Equipment).

TO : Regional Engineer, Lazio-Umbria Region A.M.C.

(29)

1. Refer your RM/MS/600.2 dated 6 February.
2. Industry Sub-Commission states that Foggia Paper Mills have been transferred to the Italian Government. The Ministry of Industry, Commerce and Labour was notified of your request.
3. You will be informed as soon as reply of Ministry is available.

W.M. LAPPIN
Lieut-Colonel,
Chief Electrical Div.

33 refers

2127

30

Tel. 478090

P.W. & U. S/C A.C.
159
16 FEB 1945 *306*

R30/eg

Ref. AC/5509/IND

15 February 1945

SUBJECT : Foggia paper mill.
Removal from the plant of electrical instruments
and of pumps for use in public works.

TO : Public Works and Utilities Sub-Commission. ✓

FROM : Industry Sub-Commission.

29

1. Reference is made to letter of the Engineering Division Lazio-Umbria Region, dated 6 February 1945, addressed to you and passed by you to this Sub-Commission.

2. As the Foggia paper mill has already been transferred to the Italian Government, your request was notified to the Ministry of Industry, Commerce and Labour.

3. You will be informed as soon as a reply of the Ministry is available.

Copy to:-
Economic Section.

[Signature]
W.S. VAUGHAN,
Director,
Industry Sub-Commission.

dt G. C. Chapman
To V.L. Ryan
Answer about
20/2/45
R.
Res note
17/2

32 refers 2119

C.de CEF/gb

C. 2/14

HEADQUARTERS
ALLIED MILITARY GOVERNMENT
LACIO UMBRIA REGION
(Engineering Division)
APO 394

6 February 1945

TO : HQ. A.C. (P.W.) (3 copies) ←

SUBJECT : Cartiere FOGGIA (Paper Mills, FOGGIA)

IN REPLY QUOTE : RA/ENG/600.2

*Original sent
to Industry
S/C*

1) Further to my RA/ENG/600.2 dated 2nd Jan to which I have had no reply.

2) The following is a list of the type of Electrical Instruments and Machines that are wanted in this Region.

Meters required for 30 & 60 KV measurements

1. Ink graph meters
2. KW meters (10,000 KW class)
3. Frequency meters (45 cycles)
4. Voltmeters
5. Amperemeters

2,3 and 4 have priority.

also any large delivery low head pumps suitable for use in BONIFICA.

3) I inspected these works in January 1944 and obtained from them 2 Pumps and Motors for a water supply, and noted that there were very large quantities of all types of Electrical Pumps, Dynamos, Motors, Instruments the maximum head of the pumps was about 40 meters.

Voltage was of two kinds (a) off Grid (b) off a plant belonging to Mills which had been destroyed by demolition.

A.A.F. (American Air Force) HQ. had frozen everything but had at that time no inventory, I recommended to them that they should require the firm to prepare and submit an inventory as at that time *Libby* has only a small portion of the works that there was any prospect of being able to start again. -

I suggest that AAF or Minister of Public Works should be requested to obtain an inventory of all unused Electrical Gear and also Pumps and make available for use where required all gear and plant NOT required for present production.

SUBJECT : Cartiere FOGGIA (Paper Mills, FOGGIA)

IN REPLY QUOTE : H4/250/600.2

1)

Further to my H4/250/600.2 dated 2nd Jan to which I have had no reply.

2)

The following is a list of the type of Electrical Instruments and Machines that are wanted in this Region.

Meters required for 30 & 60 KV measurements

1. Ink graph meters
2. KV meters (10,000 KV class)
3. Frequency meters (45 cycles)
4. Voltmeters
5. Amperometers

2,3 and 4 have priority.

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31 refers

33 refers

Original sent
to Industry
S/C

- 2 -

The factory is a State or Para Statal Company and the
motors run into hundreds and up to 450 HP. -

Please let me know action taken as a month of inaction
has already gone by. -

Connelly

Lt. Col. R.E.

Regional Engineer

Lazio Umbria Region AMG.

2117

RECEIVED
P.W. & U S/C A.C. HEADQUARTERS ALLIED COMMISSION
12 FEB 1945 159
APO 394
Agriculture Sub-Commission

BCFM/cc

28

AGR/ 512.1
TEL: 478208

1 February 1945

SUBJECT: Electric Generator.

To : Regional Commissioner, Lazio-Umbria Region (Att. Major
Wilson, Industry Division)

1. Reference:

- a) Lazio-Umbria Region - Engineering Division's letter, January 17, 1945 (R4/ENG/700.2).
- b) Agriculture Sub-Commission's letter and enclosures 8 December 1944 (AGR.512.1).
- c) Conversation this date between Lt. Comdr. Mulieri and Major Wilson.

2. In accordance with Reference (c) the request is reiterated that an investigation be made concerning the release of the generator mentioned in reference (a).

3. The importance of having such a generator at Gasta, where there is no local sources of power supply, is outlined in reference (b).

DISTRIBUTION:

- 1. Economic Section
- 2. ACHOPW & USC. ✓
- 3. Ministry of Agri. (Att. Prof. Brunelli)
- 4. Files

B.C.F. MULIERI
Lt. Comdr. USCGR
Chief Fisheries Division

*talked to Capt. Brunelli
about this. 21 Feb.
contacted Agri.
to day and discuss
the matter. 5/1/45*

HEADQUARTERS ALLIED COMMISSION
APO 394
AGRICULTURE SUB-COMMISSION
159

LGA/cam

27

28 January 1945

Tel. 262
AGR/38

SUBJECT: Recommendations of Conference Committees
to H. E. the Minister of Agriculture

TO : Economic Section

Atty. Rhodes
Happen
Thompson

To note - particularly Section E
Bonifiches

1. The attached recommendations are the result of a three-day conference held in Rome, January 23, 24, 25, 1945, on agriculture, forestry and fisheries. The conference was planned by the Ministry of Agriculture with such help as our Sub-Commission could give them. The various meetings of the conference were attended by Compartmental Inspectors of Agriculture, farm organization and association representatives, Legion Commanders of the Foreste, Prefects, wood producers, fishermen, representatives of the tuna and canning industries, municipal authorities, and representatives of the Ministries of Agriculture, Public Works, Interior and War.

2. These recommendations are translations of those prepared by Committees composed of field and central staff personnel of the Ministry of Agriculture with Allied Officer personnel sitting in to give whatever assistance they might. The recommendations represent viewpoints of Ministry of Agriculture representatives based upon discussions held during the conference on:

- A. Forestry
- B. Fisheries
- C. Agricultural Product Prices
- D. Livestock
- E. Bonificas and Land Reclamation (5 Committees)

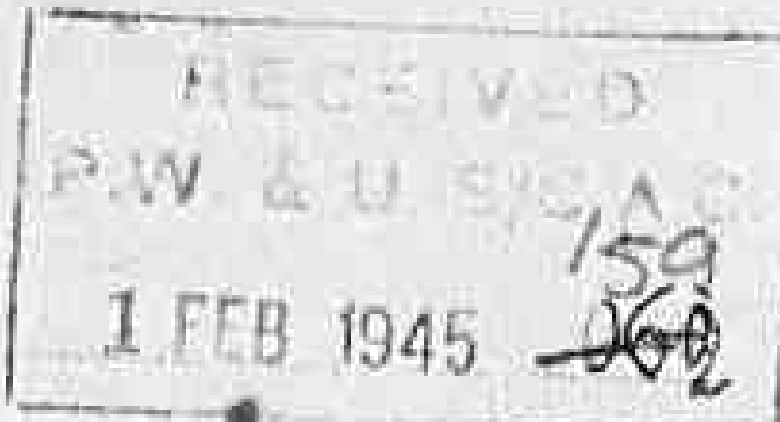
3. Now that the recommendations have been presented to the Minister, further action in regard to them will be his responsibility with whatever assistance the Agriculture Sub-Commission can give him.

Leland G. Allbaugh
LELAND G. ALLBAUGH
Director

Enclosures:
Recommendations (5 sets)

Distribution:
As per Monthly Report List

See Appendix "E"



CONFIDENTIAL

HEADQUARTERS ALLIED COMMISSION
APO 394
ECONOMIC SECTION

GM/cl

Tel. 357

Ref. RB-400/169

29 January 1945

SUBJECT: Pumping Units - Reqn. AC-ENG-67-45.

TO : Director, Public Works and Utilities Subcommittee. 17

1. Reference is made to our RB-400/169 of 30 December relative to subject requisition and item.
2. This requisition has been approved by coordinating agencies of AFHQ and forwarded to CCAC, Washington, for action.
3. In future correspondence refer to this requisition as MGS-260-ENG LAC Airgram 97 of 26/1.

Harlan Cleveland
HARLAN CLEVELAND
Executive Director
Economic Section

*Let Col. Gupper Paul
maj. Price*

Pls note

Ref. 2/2

*hsh
m*

2114

CONFIDENTIAL

CO 3181

G.de CEF/gb

25

HEADQUARTERS
ALLIED MILITARY GOVERNMENT
LAZIO UMBRIA REGION
(Engineering Division)
APO 394

25 January 1945

RECEIVED
PW & U S/CAC
27 JAN 1945 153

TO : HQ. A.C. (P.W.) ✓

SUBJECT : Bonifica PONTINA

IN REPLY QUOTE : R4/ENG/600.2

The project for the Water Gates at PONTE MACCIORRE was approved in principle under my R4/ENG/600.2 dated 12th October for Lit. 2,068,000.

In reply to a letter the Consorzio States that being a work effecting Route 7 (incidentally marked by me "very important to reduce flooding of Route 7 - Please press this")

Is a matter for Ministero dei Lavori Pubblici and that it is still under examination at the Direzione Generale dei Servizi Tecnici at the Ministero dei Lavori Pubblici.

A temporary dam has been made with Funds embezzled from other projects on my instructions the final work is suspended awaiting funds.

It is requested that you press this project very strongly as failure to deal with this work seriously effecting a Main Military Highway amounts to SABOTAGE and there has been a similar delay in the CASSINO Bonifica which has caused flooding on Route 6 thus cutting traffic on both Main Highways. - It should be definitely established who is the person who has failed to act promptly in such a case.

Carroll
Lt. Col. R. S. P.
Regional Engineer
Lazio Umbria Region AMG.

At the Thompson

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IN REPLY QUOTE : R4/ENG/600.2

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Cardiff

Lt. Col R.F.

Regional Engineer

Lazio Umbria Region AMG.

Mr. Col Thompson

Pls. try to get prompt action

May 27/1

*Approved as military project and sent
to Ministry 20/11/12 AM 29/1.*

HEADQUARTERS ALLIED COMMUNICATIONS
APR 394
ECONOMIC SECTION

RECEIVED
P W & U S C A O 183 cam
25 JAN 1945 159

C O E Y

Tel. 463361, ext. 262
AGR/23.01

27 December 1944

SUBJECT: Creation of a General Secretariat for Bonifide
TO : Ministry of Agriculture and Forests

1. The repair and reactivation of land reclamation projects at the earliest practical date, is, in our opinion, exceedingly important in the Italian recovery program. I am sure that we share the view that those elements which constitute this problem, such as the forced temporary withdrawal from production of thousands of acres of fertile land because of mines or flooding, the unemployment of thousands of farm families, and the actual or potential material condition of large areas, demand priority of attention and the most effective treatment.

2. In a letter dated 4 December 1944, you advised the Agriculture Sub-Commission that there had been created an Inter-Ministerial Coordinating Committee to make more effective the Government's handling of Bonifide problems. This action is, in our opinion, constructive and sound.

3. It does occur to us, however, that there is left to be filled one organizational void, that is, the establishment within your Ministry an office commensurate with the breadth and importance of the Bonifide responsibilities which devolve upon the Ministry of Agriculture and Forests.

4. In a letter to you dated 5 September 1944, from the Director of the Agriculture Sub-Commission, attention was previously invited to this situation. Also in that communication, the circumstances which prompted the recommendation that a General Secretariat be created were rather fully discussed. The situation today is, in our opinion, not altered except by the creation of the new Inter-Ministerial Committee, which makes it more important than ever that there exist within the Ministry of Agriculture and Forests a strong focal unit which can furnish the kind of aggressive, informed, forward-looking leadership which is required.

5. While we have suggested for consideration the name of one individual whom we consider competent to head such a staff, it is reiterated that our sole interest is to know that there exists at the national level governmental policy-making and administrative mechanism to effectively direct and coordinate the program of reactivating reclamation areas.

6. I would appreciate your advising me at an early date what plans you may have with respect to further strengthening of your organization along the lines described above.

L. D. DENSMORE
Colonel, F. A.
Acting Deputy Chief of Staff

*Let Col. Densmore
study and determine
as soon as possible
up to date*
AM

TRANSLATION

C O T Y

OP/ze

Rome, 16 January 1945

SUBJECT: Bonifien works

TO : AC - Economic Section

Copy to: Agriculture Sub-Commission

I fully share the opinion of the Economic Section and Agriculture Sub-Commission on the necessity that an adequate organization be available, as to Bonifien Services, capable to face and solve the urgent problems created by the present situation.

To meet with such an exigency, by decree of the 4 instant there has been established a Committee which, being presided by me and the Minister of Public Works, who has also the office of President of the Interministerial Committee for Reconstruction, will have the task to give directives and attend to the coordination of all activities relating to Bonifien. There are members of the Committee, more than the Chiefs of the Offices and offices concerned of the Ministries of Agriculture and Forests and Public Works, also the Director General of the National Association of Bonifien, the General Commissioner of C.N.C. and the representatives of the General Italian Confederation of Labor and Italian Federation of Agriculturists. Furthermore, Avv. Prof. Eusebio Cullini has been called to take part in it, to act as an expert; the functions of Secretary General of the Committee have been committed to him.

I shall add that in the last Council of Ministers there was approved, and will soon be published, a legislative provision concerning the transformation of the compartmental Inspectorates of Genio Civile into Provveditorati for Public Works so as to make the action of the State more rapid in executing public and Bonifien works. As a matter of fact provided for public works will be provided, by the above-mentioned provision, with special authority to approve directly, from a technical standpoint, under their own responsibility projects for work and supplies up to very considerable amounts and to order that the works be executed directly (by the consortia).

I don't doubt that your Section, and the Agriculture Sub-Commission, will agree with me in deeming that, by means of the above-mentioned provisions, the central administration has been put in the most favorable conditions to act in an authoritative and unitarian way and to win all difficulties and obstacles and, on the other hand, the field organs have been given autonomy and powers for a most rapid execution of the works.

2112

organization be available, as to some of the problems created by the present situation.

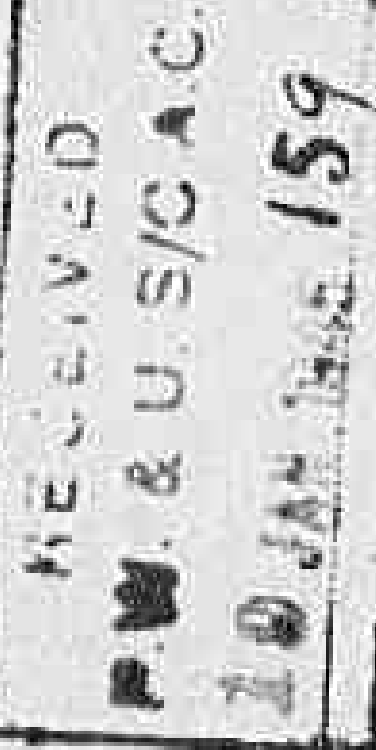
To meet with such an exigency, by decree of the 4 instant there has been established a Committee which, being presided by me and the Minister of Public Works, who has also the office of President of the Interministerial Committee for Reconstruction, will have the task to give directives and attend to the coordination of all activities relating to agriculture. There are members of this Committee, more than the chiefs of the Services and offices concerned of the Ministries of Agriculture and Forestry and Public Works, also the Director General of the National Association of Beneficence, the Commissioner of S.R.C. and the representatives of the General Italian Confederation of Labor and Italian Federation of Agriculturalists. Furthermore, Dr. Enrico Cullum has been called to take part in it, to act as an expert; the functions of Secretary General of the Committee have been committed to him.

I shall add that in the last Council of Ministers there was approved, and will soon be published, a legislative provision concerning the transformation of the Departmental Inspectorates of Public Works into Provveditorati for Public Works so as to make the action of the State more rapid in executing public and beneficial works. As a matter of fact Provveditorati for Public Works will be provided, by the above-mentioned provision, with special authority to approve directly, from a technical standpoint, under their own responsibility projects for works and supplies up to very considerable amounts and to order that the works be executed directly (by the consortia).

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It is evident, after this, that it is no more necessary to proceed to the establishment of the Provveditorato for the reconstruction of the lands of the Lazio and the Province of Naples according to the scheme forwarded to the Agriculture Sub-Commission with our letter n. 1009 of 31 October 1944.

THE MINISTER



HEADQUARTERS ALLIED COMMISSION
APO 394
Office of the Chief of Staff

R/23.14

SUBJECT: Responsibilities of Sub-Commissions for Bonifica Operations

TO : SCAs, 5th and 8th Armies; RCs, Piemonte, Liguria, Emilia, Toscana, Lombardia and Venezia Regions

The following is a broad outline of the responsibilities of the respective specialist Officers in AMG territory concerned with initiating reactivation operations of Consorzi Bonifica.

1. Agricultural Officers

- a. are charged with primary responsibility for effecting coordinated planning and action on matters concerning Bonifica;
- b. will make general investigations and provide recommendations as to urgency or priority of work relating to agriculture and will provide justifications for expenditures based on agricultural production.

2. Public Health Officers

- a. will also make general investigations and will provide recommendations and justification for urgent work from the standpoint of Public Health.

3. Public Works Officers will have the responsibility of

- a. locating Bonifica engineering personnel, including Genio Civile, Engineers of Consorzi Bonifica and other Engineers who normally worked on Bonifiche;
- b. assigning this Bonifica engineering personnel the job of developing their requirements which will enable the reconstruction of the most urgent phases of the Bonifica work;
- c. taking necessary steps to get these Engineers working immediately on flood prevention, land drainage or other urgent Bonifica work.

4. Finance Officers will provide the necessary funds when properly prepared budgets have been submitted and approved.

5. The relative responsibilities of the Agriculture, Public Health, Public Works & Utilities, and Finance Sub-Commissions at Headquarters, AC, are also as above.

W. Col. Thompson

12 January 1945

1. Think in copy of 11
This should go to all

R.E.D.

W.C.

W.C.

W.C.

RECEIVED

P.W. & U.S/C.A.C.

10 JAN 1945 159

HEADQUARTERS ALLIED COMMISSION

APO 394

Office of the Chief of Staff

R/23.14

SUBJECT: Responsibilities of Sub-Commissions for Bonifica Operations

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12 January 1945

1. Risk a copy of

This should go to all

R.E.

R.E.

70/11

R.E.

R.E.

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5. The relative responsibilities of the Agriculture, Public Health, Public Works & Utilities, and Finance Sub-Commissions at Headquarters, AC, are also as above.

By command of Rear Admiral Stone.

Copy to:

Public Health Sub-Commission
Public Works & Utilities Sub-Commission
Finance Sub-Commission
Agriculture Sub-Commission
Economic Section

Brigadier
Chief of Staff

(P. S. C. 1. 1. 1.)

im-2110

Dir 107
HEADQUARTERS
ALLIED MILITARY GOVERNMENT
TOSCANA REGION
PUBLIC WORKS & UTILITIES DIVISION

RECEIVED
P.W. & U. S/C A.C.
18 JAN 1945 159

RVIII/100/GRO/6

4-Jan.-45

22

SUBJECT: Approval of estimate.

TO : Director, Public Works & Utilities Sub-Commission
HQ Allied Commission APO 394

Herewith submitted for your approval are forms AC/1
from Chief Engineer Genio Civile Grosseto, on the following project:

GRO 137 - Reconstruction banks of the Ombrone
river. Damage caused by the flood
of 2nd Nov. 44

2104
L. 4.840.500.==

3 Encl.

File

[Signature]
Major R.E.
Regional Engineer

B/18

CO. 1000 7th
Major Westwood
I have not time to
attend to this subject. Will leave
it entirely to you to see
our family.

Am. L. 1000

2108

26 157

HEADQUARTERS
ALLIED MILITARY GOVERNMENT
TOSCANA REGION
PUBLIC WORKS & UTILITIES DIVISION

RECEIVED
P.W. & U. S/C A.C.
18 JAN 1945 159

RVIII/100/ARE/6

4-Jan.-45

SUBJECT : Approval of estimates.

TO : Director, Public Works & Utilities Sub-Commission
HQ Allied Commission APO 394

Herewith submitted for your approval are forms AC/I
from Chief Engineer Genio Civile Arezzo on the following
project :

ARE 39 - Hydraulic works of 2nd Cath. branch
of Valdichiana

S. 210,500.000.==

3 Encl.

File

[Signature]
P.E.L. LEE
Major R.E.
Regional Engineer

B/17

Sanction Decree

Ref. the preceding three notes. — 20

On the morning of 5 Jan 45, the matter was duly discussed by the Director of P.W. & S. with Eng. Tacca, Eng. Vignani and an engineer from the Min. of Agriculture and Forests. The Director learned that no further action was intended, because a different arrangement had since been agreed between the Ministries of Agric. and P.W. Works. Eng. Tacca promised to record this in an explanatory letter to the Director.

I explained the above to Mr. — in the office of Mr. Heizer and promised to report on them when the letter has been received. I returned the Agric. & P.W. draft letter, draft decree, etc. to Mr. Heizer's office, on 6 Jan 45. Thos. J. Smith

CC
File all together
in File 159, please.

Harvey

Jan

URGENT

Lt. Col. Lapper.

Ref. the attached. -

1. I observe that the Director wishes to discuss these proposals with a representative of the Min. of Public Works. In this connexion I observe, from the fourth paragraph of the "Report on the Scheme of Decree...", that "The 'Proveditorato' will have the same attributions which, according to present Law, are entrusted to the Ministry of Agriculture, about public works, etc." From this it would appear that there is no intention to reduce or in any way alter the present responsibilities of the Ministry of Public Works in this matter — whatever those responsibilities, if any, may be — but merely to delegate ^{the powers of} ~~the~~ the Min. of Agriculture to the Proveditorato.

2. Considering that the Ministry of Public Works is to be a party to the Decree ²¹⁰⁵ (vide para. 2 of attached draft letter), I do not see any comment that we need make at this stage. But I agree that we ought to invite the Ministry of Public Works to express its opinion to us before the Decree be finally approved by the A.C.

3. Incidentally, I do not agree with all the observations in para. 3 of the attached draft letter from Agrie. S/C., but those points ~~do~~ do not much concern us.

4. In view of Article ~~II~~ 11, I suggest that the title of the Decree should be extended by the phrase "... and provisions for the creation of other similar Proveditorati in other regions of the national territory".

5. I note that the Director wishes us to arrange for ^{him to interview} ~~with~~ a responsible engineer of the Min. of Public Works.

[Signature]
G. Han.

Det. Col. Chappin

Has been reviewed promptly. I would like to discuss this with a representative of the P.W. Ministry. Can you arrange for an appointment. I have no objection to the plan, but it seems to me the P.W. Ministry duties should be clearly defined.

210

D.P. 3/12

Dr. J. B. Kentwood

~~From~~

Please Shirley
and let me
know what you
think about

G.de CEF/gb
62695

HEADQUARTERS
ALLIED MILITARY GOVERNMENT
LAZIO UMBRIA REGION
(Engineering Division)
APO 394

3 JAN 10 15 159

2 January 1945

TO : HQ. A.C.(P.W.) ✓
SUBJECT : Pontine Marshes
IN REPLY QUOTE : R4/ENG/600.2

As the likely-hood of finding the Pumps has again faded,
I recommend that an officer and Engineer Italian visit the Paper works
at FOGGIA where large numbers of low head motor pumps in good condition
were noted by me last January at which date they were idle as only a
portion of plant was fit to use owing to other reasons.

If you agree please issue a formal instruction to Southern
Region to permit such a visit.

Fuller
Lt.Col.R.E.
Regional Engineer
Lazio Umbria Region AMG.

Copy to:
P.W.(F)

At Col. Laffer

2103

*If there are any pumps of
worthwhile capacity they certainly
should be put to use.*

Ref 5/1

*By agreement with Lt Col Laffer.
I spoke to Lt Col. Hindley about this over telephone on
5 Jan and suggested that he arrange with Lt. Hambley at the
Reg Engineers' meeting on Monday 8 Jan* 5/1

Lt. Lathrop

Freedom 251

A F H Q

Requester 67/45

Ticket No. 926

Approx. discharge in gallons
per minute - ?

200 Pumps for Po Valley

Performance
relative to
4 Jan
[Signature]

Major Westwood -

Please phone Lt. Lathrop
and give him desired information. 2102

AFR

4 Jan

HEADQUARTERS
ALLIED MILITARY GOVERNMENT
LAZIO-UMBRIA REGION
(Engineering Division)
APO 394

RECEIVED
P.W. & U. S/C A.C.
3 JAN 1945 159

2 January 1945

SUBJECT : Missing machinery for Agro Pontino.

TO : Public Works and Utilities Sub-Commission,
Hq., AC., APO 394.

1. With reference to the your letter file 159/PWU dated 23 December, 1944, Sig. Falso did secure a permit to look for missing pumping and electrical machinery, but some time after arriving in the vicinity of Firenze was instructed by officials of a Sugar Refinery to return to Rome. Sig. Falso was interviewed by the undersigned in Littoria. He then reported finding various items of machinery between Firenze and Pisa, which report was later found to be false.

2. Sig. Falso had used the pretext of going north to look for pumping machinery as an excuse to visit friends in that vicinity. Upon his return to Littoria Sig. Falso was dismissed by the Sugar Refinery, his former employer.

For the Engineer:

Harry Larson
HARRY LARSON,
Major, Corps of Engineers.

Det Col Hopper

Pls note

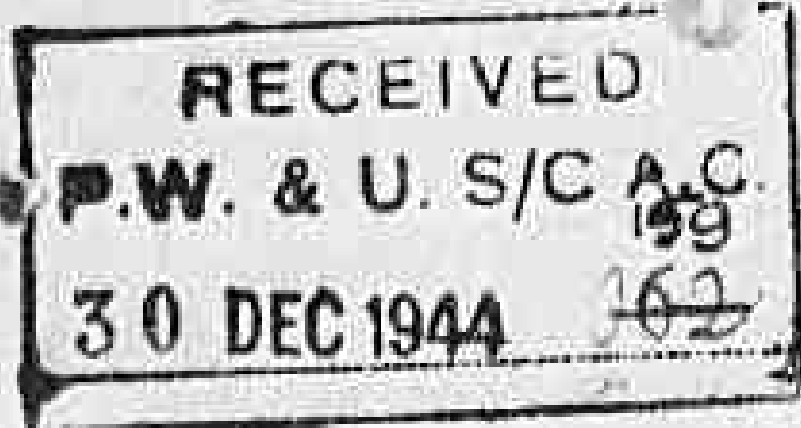
WJ 3/1

H. J. H.

2103

Reqn.Div./GF/mg

CONFIDENTIAL



HEADQUARTERS ALLIED COMMISSION
APO 394
Requisition Division

17

In reply
refer to:
RD-400/169

30 December 44

SUBJECT: Pumping Units.

TO : Director, Public Works & Utilities Subcommittee, Allied
Commission.

1. Attached Requisition, AC-ENG-67-45 of 26 December 1944, has been screened by this Division and forwarded to AFHQ for action.
2. You will be advised of all future action taken in the procurement and shipment of items listed in this Requisition.

Robert A. Martino
ROBERT A. MARTINO, Sr.
Lt. Col., SR. ORC,
Chief, Requisition Division.

Copy to:
Agriculture Subcommittee.
Attention: Maj. J. Hizer.

*Discharge copy sent
out to Mr. Hizer
of Requisition. Pointed
out to Lt. Col. Martino
on 2 Jan 45.*

2100

26 refs

CONFIDENTIAL

CONFIDENTIAL

AFHQ - G-5 Section

13
12

1

AC-ENG-57-45

26 December 1944

SPECIAL

AC Public Works and Utilities Sub-Commission as indicated below.

ROBERT A. MARTINO,
Lt. Colonel, S.R.
Chief, Requisition Division

L. D. DRESSER
Colonel, F. A.
Acting Vice President,
Economic Section

Reqs: PUMPING UNITS, 50 Horse power, RA
approximate discharge in gallons ? (12,000)
per minute; total head in feet
10; (see details under headings
"Note" and "Specifications" below).

200

NOTE:

The pumps may be either (a) directly driven by the prime-movers or, (b) alternatively, may be driven by electric motors, the prime movers being used to drive alternators, each power unit being coupled with an alternator on a single transportable bed to form an independent generator set. The latter arrangement (b) would present the following advantages:-

1. The actual pumping units (with electric motors) would be smaller overall, and more manoeuvrable, and could therefore be more readily designed for general ease of installation in diverse situations.
2. The independent transportable generator sets could ultimately be used to furnish electric power to other purposes.

Against these advantages it must be admitted that such an arrangement would be more costly, would involve the production of more machinery, and would have a lower overall efficiency, thus necessitating a somewhat greater fuel consumption. Nevertheless, it would be preferred.

If this "diesel-electric" alternative (b) be decided upon in preference to pumps directly driven by oil engines, it is recommended that the electrical system adopted should be of 3 phase, 42 cycle.

CONFIDENTIAL

AC-ENG-67-45

2

Suitable specifications for both of the above alternatives, (a) and (b), have already been offered by the S. Morgan Smith Company, of York, Pennsylvania, U.S.A. Copies of plans of that Company are in the hands of the International Division of C.C.A.C. and of the Utilities Division of the War Production Board. However, these plans were made for a frequency of 50 cycles which now must be revised to a 42-cycle frequency.

SPECIFICATIONS:

1. The plant which is requested represents no more than approximately ten per cent of the total pumping capacity at present installed in the extensive artificially drained areas of the Po Valley and the Northern Adriatic coastal plains. This percentage is very small in comparison with the conditions that were found in the Pontine Marshes area, where ninety per cent of the pumping plant had been rendered entirely unusable.

2. In deciding upon the type of emergency equipment required, the following facts have been borne in mind:-

- a. Less than half of the existing pumping installations in the Po Valley and Northern Adriatic coastal plains are operated by electricity, the remainder being driven by oil or steam power.
- b. Electric power lines and generating stations must be expected to be largely destroyed.
- c. It can, therefore, be assumed (on the basis of existing knowledge and experience already gained) that little or no electric power will be available for drainage pumping during at least the first twelve months.

2098

3. In view of the foregoing factors it is recommended that the motive power of all the required emergency plant should be derived locally from heavy-oil engines.

4. For ease and rapidity of installation, the pumping units should be of the "transportable" kind, and each should be equipped with at least thirty feet of delivery piping. It is believed that pumps of the axial-flow "screw" type would be most suitable, and in order to avoid the necessity for mechanical priming, it is suggested that they could advantageously be of "submersible" pattern.

AC-ENG-67-45

3

All the pumps should be designed to pass small solids and weeds, such as might pass through coarse screens, and it is also suggested that the mouths of the suction pipes should in any case be fitted with substantially made strainers. Needless to say, the power units should be provided with all necessary auxiliaries, such as fuel oil tanks and apparatus for forced circulation of cooling water.

5. The pumps should be designed to operate at best efficiency against a total head (from all causes: suction lift, delivery head and friction losses) of ten feet. It is expected, however, that greater heads will in many cases be encountered, and in order to make it possible to contend with such greater heads, it is requested that one of the following modifications be adopted in the manufacture of the pumps:

- (a) Incorporation of variable-pitch impellers;
- (b) Provision of alternative impellers, designed for twenty feet head. (These should be easily interchangeable with the standard 10 ft. head impellers).
- (c) Provision for easily coupling two standard pumps in series, to operate as a two-stage installation.

BASIS: It is the considered judgment of the Allied Commission that the diesel-powered pumps being requisitioned represent one of the vital requirement items for Italy.

That these pumps are of important military significance is supported by the following facts.

A. General.

(1) They will be used as emergency equipment to counteract the otherwise disastrous effects of war damaged and flooded reclaimed and irrigated areas of Northern Italy.

(2) The critical provinces which demand attention number 20 and are located in the Lombardia, Emilia and the south central portion of Veneto.

(3) The 20 provinces are:-

LOMBARDIA: (irrigated areas) Milano, Pavia, Cremona, ²⁰⁹⁷ Brescia.
 LOMBARDIA: (irrigated and reclaimed areas) Cremona, Brescia, Mantova.
 VENETO: (Venezia Euganea); Verona, Rovigo, Padova, Venezia, Treviso, Udine.
 EMILIA: Piacenza, Parma, Reggio, Modena, Bologna, Ferrara, Ravenna, Forli.

AC-ENG-67-45

4

(4) Since from about 80 to 95% of the plains of these provinces are either irrigated or reclaimed land, it is reasonable to discuss the area of the plains as a whole.

(5) The larger part of these plains can be inundated or damaged with disastrous consequences to the entire country.

(6) The most critical provinces are: Ravenna, Ferrara, Rovigo, Venice, and Udine, in which provinces approximately 1,250,000 acres are under sea level.

(7) Also, it is an important fact that according to the 1936 census the above mentioned plains had the following respective populations:

LOMBARDIA:	.....	.....	3,546,334
VENETO (Venezia Euganea):	.....	.....	2,987,244
EMILIA:	.....	.....	1,995,775

and a density of population per square kilometer of:-

LOMBARDIA :	.....	.....	353
VENETO:(Venezia Euganea)	.....	.....	240
Emilia:	.....	.....	195

as contrasted with 16 in the United States and 1.1 in Canada.

(8) The agricultural production required to meet the needs of so dense a population is seriously impressive. When it is recognized that the area of the above said reclaimed and irrigated regions comprises only 10.5% of the Kingdom and yet in 1938 produced the following percentages of food, the priority of attention which is deserved begins to establish itself.

Wheat	.....	23.4%
Corn	.....	47.3%
Rice	.....	50.5%
Sugar of Beets	.....	87.0%
Cows milk (exceeding calf requirements)	.....	38.1%
Beef	.....	33.45%

2098

(9) Since large valley areas of the central and lower Po and of other rivers (especially of Adige and Reno) are susceptible to total inundation, the threat extends beyond agricultural production of food products and raw materials to all other forms of economic activity, including lines of communications of all types and industries. Other important aspects include housing, employment

AC-ENG-67-45

5

of millions of farmers and workmen in towns ranging in size from the greatest industrial and commercial centre of the Kingdom (Milano) to middle size (Piacenza, Parma, Reggio, Modena, Ferrara, Rovigo, Padova, Mestre, etc.) and small boroughs and villages. Some of these towns are included in the reclaimed or irrigated areas and could be inundated while others could be isolated by overflowed territories. Consequently, the populations of these areas now enjoying excellent sanitary conditions quite conceivably could become seriously afflicted with malaria and malnutrition (see Exhibit B) as has occurred, for example, in recent months at Fondi and Formia (Sessa Aurunca).

(10) THEREFORE, FROM ALL POINTS OF VIEW (agriculture, industry, public health, unemployment and forced emigration) IT CAN PROPERLY BE SAID THAT THE PLAINS OF LOMBARDY, VENETO AND EMILIA CONSTITUTE THE KEY DANGER ZONE IN ITALY.

(11) Enormous difficulties to the advance of the Allied Armies or to the Armies' supply lines and paralysis of "behind the line" military supporting activity along with the economy could result if pumping equipment were not made available for emergency use.

B. Food and Fiber Production.

(1) Notwithstanding the fact that the 20 provinces comprise only 10.5% of the total area of the Kingdom, the following essential food and fiber productions were realized in 1938:-

Product	Percentage of Total Italian Production	Weights in Tons	Dollar Value F.O.B. Naples
Wheat	23.4	1,917,698	220,057,000
Corn	47.3	1,249,460	106,250,000
Rice	50.5	412,506	61,875,000
Potatoes	9.4	242,014	29,040,000
Sugar Beets	87.3 (Sugar)	408,000	81,160,000
Cows Milk (exceeding calf requirements)	38.1	2,040,000	306,000,000
Beef	33.45	166,500	66,600,000
Hogs	29.65	52,200	20,936,540,000
Hemp	60.1	70,293	
Silk Cocoons	54.0	10,777	
Forages (of all kinds)		320,000	907,522,000

AC-ENG-67-45

6

(2) Although not included in the above list, this area produces very important quantities of vegetables, wines, fruits, poultry and poultry products (especially eggs), etc..

(3) The prospect of denying to a hungry population any significant portion of the food which is capable of being grown in this densely populated fertile area is fraught with serious possibilities. Emergency pumping equipment which can readily be moved into the devastated areas could well make the difference between a seriously hungry, restless population and a stable situation.

(4) If indigenous food is not to be had in sufficient quantities, the alternative is for it to be shipped in by the Allies if stability is to be maintained.

C. Shipping Space and Dollar Value.

(1) Translating the tonnage of the 8 major food items produced in the 20 provinces into terms of shipping space results in a piece of conclusive evidence that this productive area must be kept in cultivation. Using a Liberty ship average capacity figure of 9,000 tons, 721 shiploads of food would have to be imported, assuming total crop loss and total replacement. The dollar value of this food in very approximate terms would be \$907,000,000.

D. Possibility of Damage or Destruction.

(1) Based on current knowledge of enemy destruction to reclamation works in Central Italy and on meager advices reaching us to date from the North, it must be assumed that a number of the important areas will be seriously damaged and flooded. Word has reached us in the last days that the plain south of Ravenna (in the Po Valley) has been flooded by the destruction of river embankments, and that other larger inundations are being effected northwest of Ravenna to the centre of the Po Valley.

(2) An example of the seriousness of possible similar actions in the future is the area which stretches from Pontelagoscuro on the right bank of Po near Ferrara, to the left bank of the river Reno and the lagoon of Comacchio. This entire expanse of fertile and highly developed country is susceptible to flooding (500,000 acres) including Ferrara with a population of 130,000 inhabitants and all the industrial plants of Pontelagoscuro and Ferrara (especially sugar refineries, hemp manufactures, chemical industries).

AC-ENG-67-45

7

(3) In such an eventuality military equipment, including pumps, must be available not only to quickly drain the area but to keep it drained.

(4) Also, it should be pointed out that some areas of Emilia and Veneto can be inundated with salt water and if they cannot be rapidly drained they will remain unproductive for years.

(5) North of the Pisa-Rimini Line the enemy has had months to scientifically prepare for the damage or destruction of vital points in the canal, dike and pumping systems or to make necessary preparations for removal and carrying away vital equipment. We already have definite information that certain dikes, canals, etc., have been mined. The enemy's withdrawal from Southern and Central Italy was considerably more rapid than their withdrawal is proving to be in the North. Notwithstanding, almost 400,000 acres of such important bonifiche as Littoris; Pontine Marshes, Fondi and Sasse Aurunca were flooded and after these many months are still under water. Therefore, there can be little doubt about the enemy's planned pattern of destruction for the North.

E. Ratio of Recommended Emergency Requirements to Normal Pumping Capacity.

(1) Our estimated emergency pumping equipment requirements have been developed with great care and have been reduced to the barest minimum which we could conscientiously recommend. The conservatism of our figure will be borne out by the attached Table (b) which compares the emergency needs with normal pumping capacity in the area. It will be seen that the pumps being requisitioned here represent only 10% of normal pumping capacity. Actually, we expect destruction and removal of equipment to far exceed the replacement capacity of the 200 emergency pumps we recommend immediately procuring.

However, they should be of significant assistance in counteracting the effect of the major destruction activities of the enemy when supplemented with maximum cannibalization and repair of local equipment left behind (providing there is sufficient electric power to operate the reconstructed pumps).

F. Other Considerations.

(1) It will be noted that this statement does not take into consideration such aspects as civilian physical economic rehabilitation, the effect on Italy's financial position; production for export, etc. These aspects have not been inadvertently overlooked, but were consciously divorced from our thinking in preparing this bill of emergency military pumping requirements to clearly avoid confusion with the civilian requirements program which is now being developed separately.

AC-IND-67-45

8

(2) The most expeditious action possible is urgently recommended in the procurement and delivery of these pumps to assure their making their intended maximum military contribution.

(3) In substantiation of the possible effect upon Industry of enemy sabotage of dams and river retaining walls as well as the potentiality of malaria in the Po Valley, there are attached to and made a part of the justification of this requisition the following communications:

- a. AC Industry Sub-Commission letter dated 6 December 1944, file reference AC/5587/Ind.
- b. AC Public Health Sub-Commission letter dated 7 December 1944, file reference AC/3005/PH.

DELIVERY: Ship to ANCONA consigned to AC Public Works and Utilities Sub-Commission or to Port of Venice if available at time of shipment.

RATING: I

////////////////////END OF REQUISITION////////////////////////////////////

2092

TABLE A)Rome, Dec. 7th. 1944COMPARISON OF AGRICULTURAL PRODUCTION AND POPULATION OF THE PLAINS

OF

LOMBARDIA-VENETO-EMILIA WITH TOTAL KINGDOM

COMPARISON ELEMENTS		KINGDOM	PLAINS OF LOMBARDIA-VENETO-EMILIA	
			Total	% on Kingdom
TOTAL AREA (acres)		75,613,620	9,077,327	10,5
PRODUCTIVE AREA (acres)		70,767,157	7,214,316	10,2
TOTAL POPULATION		42,993,602	8,529,351	19,9
PER SQ. KILOM. OF TOTAL AREA		138	261	
" " " OF PRODUCTIVE AREA		150	292	
AGRARIAN POPULATION		18,888,758	3,551,108	18,8
CATTLE		7,665,890	2,561,000	33,4
WHEAT		8,183,340,00	1,917,698,80	23,4
CORN		2,638,180,00	1,249,460,30	47,3
RICE		816,819,90	412,506,20	50,5
POTATOES		2,578,050,00	242,014,70	9,4
SUGAR OF BEET		468,000,00	408,000,00	87,3

TOTAL POPULATION	42,993,602	8,529,351	19,9
PER SQ. KILOM. OF TOTAL AREA	138	261	
" " " OF PRODUCTIVE AREA	150	292	
AGRARIAN POPULATION	18,888,758	3,551,108	18,8
CATTLE	7,666,890	2,561,000	33,4
WHEAT	Production metric tons	1,917,698,80	23,4
CORN	" "	1,249,460,30	47,3
RICE	" "	412,506,20	50,5
POTATOES	" "	242,014,70	9,4
SUGAR OF BEET	" "	408,000,00	87,3
MILK OF COW EXCESS OVER CALF REQUIREMENTS	" "	2,040,000,00	38,1
BEEF	" "	166,500,00	33,45
POGS: WHEAT AND FAT	" "	52,800,00	29,65
HEMP	" "	70,293,50	60,1
SILK COCONS	" Files (2,24	10,777,805,00	54,0
FORAGE	" metric tons	8,467,450,00	29,1

2091

P U M P I N G S T A T I O N S

I N T H E R E G I O N S : L O M B A R D I A - V E N E T O - E M I L I A

R E G I O N S		TOTAL, APPROX., DISCHARGE IN GALLONS/MINUTE (°)
L O M B A R D I A		1.920.000
V E N E T O		11.760.000
E M I L I A		12.600.000
T O T A L S		26.280.000

(°) Private pumping plants included.

Among the pumping plants:

80	each one with an approx. discharge from 48.000 to 80.000 gallons/minute
100	" " " " " "
	more than 80.000 " "

It is pointed out that some pumping plants, have a very large discharging capacity as is illustrated by the following table:

Town of Piacenza	3 pumps with a total discharging capacity of	284.000 gallons/minute
Parmigiana Moglia	13 " " " "	" " 1.520.000 " "

LOMBARDIA	1.920.000
VENETO	11.760.000
EMILIA	12.600.000
TOTALS	26.280.000

(*) Private pumping plants included.

Among the pumping plants:

80 each one with an approx. discharge from 48.000 to 80.000 gallons/minute

100 " " " " " More than 80.000 " "

It is pointed out that some pumping plants, have a very large discharging capacity as is illustrated by the following table:

Town of Piacenza	3 pumps with a total discharging capacity of	284.000 gallons/minute
Parmigiana Moglia	13 " " " "	" 1.520.000 "
Burana	4 " " " "	" 632.000 "
Purana (other)	4 " " " "	" 450.000 "
Renana	6 " " " "	" 920.000 "
Renana (other)	" " " "	" 370.000 "

2093

2089

TABLE C)MOTORS OF PUMPING STATIONIN THE REGIONS: LOMBARDIA-VENETO-EMILIA

R E G I O N	S T E A M		D I E S E L	
	Number	Capacity HP.	Number	Capacity HP.
LOMBARDIA (X Region)	3	4.095	13	6.175
VENETO (XII Region)	30	4.095	253	28.529
EMILIA (IX Region)	33	17.984	80	19.213
TOTALS	66	26.174	346	53.917

C A P A C I T Y in HP.	X REGION LOMBARDIA			VENETO (central area of Region XII)			IX REGION	
	Steam Motors Number	Diesel Motors Number	Electric Motors Number	Steam Motors Number	Diesel Motors Number	Electric Motors Number	Steam Motors Number	Diesel Motors Number
To 29	-	5	84	-	3	30	1	-
From 30 to 49	-	-	-	1	33	29	-	-
" 50 " 99	-	-	10	11	83	53	13	2
" 100 " 149	-	-	-	7	36	29	-	3
" 150 " 199	-	-	-	3	49	27	1	-
" 200 " 499	3	-	12	8	39	34	2	-
" 500 " 999	-	4	1	-	5	9	6	1
" 1000 " 5000	-	4	-	-	5	-	9	-
More than 5000	-	-	-	-	-	-	1	-
	3	13	107	30	253	211	33	8

Rome, Dec. 7th. 1944

OF PUMPING STATIONS

REGIONS: LOMBARDIA-VENETO-EMILIA

Capacity HP.	D I E S E L		E L E C T R I C		T O T A L S	
	Number	Capacity HP.	Number	Capacity HP.	Number	Capacity HP
.095	13	6.175	107	14.052	123	24.322
.095	253	28.529	211	25.743	494	58.367
.984	80	19.213	154	26.840	267	64.037
.174	346	53.917	472	66.635	884	146.726

VENETO (central area of Region XII)			IX REGION EMILIA			T O T A L S			G E N E R A L T O T A L
Steam Motors Number	Diesel Motors Number	Electric Motors Number	Steam Motors Number	Diesel Motors Number	Electric Motors Number	Steam Motors Number	Diesel Motors Number	Electric Motors Number	
-	3	30	1	-	9	1	8	123	132
1	33	29	-	-	7	1	33	36	70
11	83	53	13	22	39	24	105	102	231
7	36	29	-	38	49	7	74	78	159
3	49	27	1	2	-	4	51	27	82
8	39	34	2	4	37	13	43	83	139
-	5	9	6	13	13	6	22	23	51
-	5	-	9	1	-	9	10	-	19
-	-	-	1	-	-	1	-	-	1
30	253	211	33	80	154	66	346	472	884

(COPY)

TABLE E

Ref. AG/5567/IND

6 December 1944

SUBJECT: Possible effect upon Industry of enemy sabotage of dams and river retaining walls in the Po Valley.

TO : Economic Section

FROM : Industry Sub-Commission

1. Reference is to map shown to Industry Sub-Commission showing areas in Northern Italy which can be inundated by destruction of sea walls and levees retaining rivers, particularly the Po and the Adige, or by destruction of irrigation systems in the upper reaches of the Po.

2. In the time available for preparation of this memorandum it has not been possible to breakdown the effect of such sabotage into regions or by types. An overall picture of the maximum possible effect is therefore presented below:

A. Possible effect upon Employment

The areas under reference are inhabited by approximately 25% of the whole Italian population, and by 34% of the industrial population, or 12 millions and 1,700,000 respectively.

B. Possible effect upon Industrial Production

(a) The consumption of electrical energy in these areas is approximately 35% of the total consumed by all Italian Industry; namely, more than 2,000,000 KW out of 6,000,000 KW, with an annual total of about 4 billion KWh.

(b) The percentage of the most important industries located in these areas to the total of the whole Italian industrial capacity is as follows:

Wood & allied products	29%	Printing	34%
Food processing	31%	Leather & allied products	30%
Metallurgical	30%	Textiles	39%
Mechanical Engineering	40%	Clothing manufacture	35%
Chemical	37%	Miscellaneous	35%
Paper & allied products	41%		

3. (Source of the above data - the Istituto Centrale di Statistica).

20

/s/

W. S. VAUGHAN
Director
Industry S/Commission

(COPY)

TABLE F

HEADQUARTERS ALLIED COMMISSION
APO 394
Public Health Sub-Commission

7 December 1944

AC/3005/PH

SUBJECT : Potentiality of Malaria in the Po Valley.
TO : Economic Section, H.Q. Allied Commission.

1. The Germans in their retreat towards the North of Italy have systematically destroyed the land reclamation projects on Bonifiche of Italy. This smashing of pumps, blocking of canals and deliberate diversion of sea and river water has greatly increased the breeding places of malaria mosquitoes. The destruction has enormously increased the malaria potential in Italy.
2. It is not anticipated that in their retreat from the Po Valley the Germans will in any way alter their previous tactics. It is, therefore, anticipated that the whole area of the Po Valley will be a potential malarious death-trap.
3. The region of the Po Valley is one of the most densely populated in all Italy and the anticipated flooding will therefore, cause the utmost misery and suffering to an enormous number of the Italian civilian population. Conditions will be suited to the outbreak of epidemic of typhoid and possibly even typhus, while diseases of the respiratory system will undoubtedly increase. Any large scale outbreak of epidemic diseases will constitute a grave menace to the Allied troops and it is therefore considered that no effort should be spared in making provision for reclaiming the land by pumping and also stimulating the local Italian work of bonification.
4. If this work is not pressed to the utmost and every effort possible made to overcome the flooded condition of the country, conditions conducive to the outbreak of infectious disease will result and the incidence of malaria among the civil population during the coming season will be exceptionally high. The repercussion upon the Allied Armies of epidemics and a high malaria rate amongst the civil population would be such that no effort should be spared in attempting to avert such a contingency.

For Brigadier G. S. PARKINSON

/s/ G. M. FRIZELLE 2037
Lt. Colonel,
Chief, Public Health Branch

Tel: 489081
Extn. 320

HWB/bb

HEADQUARTERS ALLIED COMMISSION
APO 394
Public Works and Utilities Sub-Commission

REFERENCE: 159/PTU

26 Dec. 44

SUBJECT : "Pontine Marshes".

TO : Regional Commissioner, Lazio-Umbria Region.
(Attention: Regional Engineer).

1. Reference your letter RA/ENG/600.2 of 3 Dec. 44, and enclosures.
2. Thank you for the information and for furnishing the promised map showing flooded areas.
3. The following documents are returned herewith at your request:-

- (a) Copy of RA/ENG/822 dated 12 Sep 44;
- (b) Copy of RA/ENG/822 dated 20 Sep 44;
- (c) Copy of RA/ENG/600.2, dated 3 Oct 44;
- (d) Copy of RA/ENG/600.2, dated 23 Oct 44;
- (e) Map referred to in (d).

By Command of Rear Admiral Stone.

L.A. JENNY,
Lt-Colonel, C.E.,
Director.

Enclosures: Documents enumerated
in para. 3 hereof.

2086

Tel: 489081

HWW/bb

HEADQUARTERS ALLIED COMMISSION
ARO 394
Public Works and Utilities Sub-Commission

15

159/PNU

23 Dec 44

SUBJECT: "Pontine Marshes". - Missing Machinery.

TO : Regional Commissioner, Lazio-Umbria Region.
(Attention: Regional Engineer.)

1. Reference your letter R4/ENG/600.2, of 2 Dec 44.
2. We shall be glad to know, in due course, the results of your endeavours to trace and interview Sig. Falso.

By Command of Rear-Admiral Stone.

18 refers

V.M. LAPIER,
Lieut-Colonel,
Chief Electrical Division.

2085

14

SPECIFICATION

14 DEC 44

PREAMBLE

The plant which is requested represents no more than approximately ten per cent of the total pumping capacity at present installed in the extensive artificially drained areas of the Po Valley and the Northern Adriatic coastal plains. This percentage is very small in comparison with the conditions that were found in the Pontine Marshes area, where ninety per cent of the pumping plant had been rendered entirely unusable.

In deciding upon the type of emergency equipment required, the following facts have been borne in mind :-

- (I) Less than half of the existing pumping installations in the Po Valley and Northern Adriatic coastal plains are operated by electricity, the remainder being driven by oil or steam power.
- (II) Electric power lines and generating stations must be expected to be largely destroyed.
- (III) It can, therefore, be assumed (on the basis of existing knowledge and experience already gained) that little or no electric power will be available for drainage pumping during at least the first twelve months.

In view of the foregoing factors it is recommended that the motive power of all the required emergency plant should be derived locally from heavy-oil engines.

DESCRIPTION

For ease and rapidity of installation, the pumping units should be of the "transportable" kind, and each should be equipped with at least thirty feet of delivery piping. It is believed that pumps of the axial-flow "screw" type would be most suitable, and in order to avoid the necessity for mechanical priming it is suggested that they could advantageously be of "submersible" pattern. All the pumps should be designed to pass small solids and weeds, such as might pass through coarse screens, and it is also suggested that the mouth of

208

the suction pipes should in any case be fitted with substantially made strainers. Needless to say, the power units should be provided with all necessary auxiliaries, such as fuel oil tanks and apparatus for forced circulation of cooling water.

The pumps should be designed to operate at best efficiency against a total head (from all causes: suction lift, delivery head and friction losses) of ten feet. It is expected, however, that greater heads will in many cases be encountered, and in order to make it possible to contend with such greater heads, it is requested that one of the following modifications be adopted in the manufacture of the pumps:-

- (a) Incorporation of variable-pitch impellers;
- (b) Provision of alternative impellers, designed for twenty feet head. (These should be easily interchangeable with the standard 10 ft. head impellers).
- (c) Provision for easily coupling two standard pumps in series, to operate as a two-stage installation.

The pumping units required, to fulfil the above stated needs, are as follows :-

Horse Power	TYPE		NUMBER REQUIRED
	Approximate discharge in gallons per minute	Total head in feet	
50	13,000	10	200

NOTE.

The pumps may be either (a) directly driven by the prime movers or, (b) alternatively, may be driven by electric motors, the prime movers being used to drive alternators, each power unit being coupled with an alternator on a single transportable bed to form an independent generator set. The latter arrangement (b) would present the following advantages :-

(I) The actual pumping units (with electric motors) would be smaller overall, and more manoeuvrable, and could therefore be more readily designed for general ease of installation in diverse situations.

(II) The independent transportable generator sets could ultimately be used to furnish electric power for other purposes.

Against these advantages it must be admitted that such an arrangement would be more costly, would involve the production of more machinery, and would have a lower overall efficiency, thus necessitating a somewhat greater fuel consumption. Nevertheless, it would be preferred.

If this "diesel-electric" alternative (b) be decided upon in preference to pumps directly driven by oil engines, it is recommended that the electrical system adopted should be of 3-phase, 42-cycle.

Suitable specifications for both of the above alternatives, (a) and (b), have already been offered by the S. Morgan Smith Company, of York, Pennsylvania, U.S.A. Copies of plans of that Company are in the hands of the International Division of C.C.A.C. and of the Utilities Division of the War Production Board. However, these plans were made for a frequency of 50-cycles which now must be revised to a 42-cycle frequency.

SPECIFICATION14 DEC 49PREAMBLE

The plant which is requested represents no more than approximately ten per cent of the total pumping capacity at present installed in the extensive artificially drained areas of the Po Valley and the Northern Adriatic coastal plains. This percentage is very small in comparison with the conditions that were found in the Pontine Marshes area, where ninety per cent of the pumping plant had been rendered entirely unusable.

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- (ii) Electric power lines and generating stations must be expected to be largely destroyed.
- (iii) It can, therefore, be assumed (on the basis of existing knowledge and experience already gained) that little or no electric power will be available for drainage pumping during at least the first twelve months.

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DESCRIPTION

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2082

the suction pipes should in any case be fitted with substantially meshed strainers. Needless to say, the power units should be provided with all necessary auxiliaries, such as fuel oil tanks and apparatus for forced circulation of cooling water.

The pumps should be designed to operate at best efficiency against a total head (from all causes: suction lift, delivery head and friction losses) of ten feet. It is expected, however, that greater heads will in many cases be encountered, and in order to make it possible to contend with such greater heads, it is requested that one of the following modifications be adopted in the manufacture of the pumps:-

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(i) The actual pumping units (with electric motors) would be smaller overall, and more manoeuvrable, and could therefore be more readily designed for general ease of installation in diverse situations.

(ii) The independent transportable generator sets could ultimately be used to furnish electric power for other purposes.

Against these advantages it must be admitted that such an arrangement would be more costly, would involve the production of more machinery, and would have a lower overall efficiency, thus necessitating a somewhat greater fuel consumption. Nevertheless, it would be preferred.

If this "diesel-electric" alternative (b) be decided upon in preference to pumps directly driven by oil engines, it is recommended that the electrical system adopted should be of 3-phase, 42-cycle.

Suitable specifications for both of the above alternatives, (a) and (b), have already been offered by the S. Morgan Smith Company, of York, Pennsylvania, U.S.A. Copies of plans of that Company are in the hands of the International Division of C.C.A.C. and of the Utilities Division of the War Production Board. However, these plans were made for a frequency of 50-cycles which now must be revised to a 42-cycle frequency.

208

Tel. 489081
Ext. 320

LAD/ce

HEADQUARTERS ALLIED COMMISSION

APC 394

Public Works and Utilities Sub-Commission

159/PWU.

6 Dec. 44

SUBJECT: Benefiche Projects.

TO : Ministry of Public Works
(att: Signor Rizzano)

2. I have your letter of 28th Nov. 1944 in which you advise me that you have under consideration projects amounting to 500 million lire in connection with repair work on various Benefiche projects damaged by the enemy. You also state that this problem has been discussed with the Forest and Agriculture Ministry and with the Agriculture Sub-Commission of A.C. for the necessary approval of A.C.

2. In accordance with instructions issued by the Public Works and Utilities Sub-Commission under date of 18th Nov. 1944, copy of which was sent to the Ministry of Public Works, projects in Italian Government Territory requiring no critical material from Allied sources, will no longer have to be submitted to this Sub-Commission for approval. Therefore, if any of the projects under consideration come within Italian Government Territory, they do not have to be submitted to this Sub-Commission for approval and the Ministry of Public Works will have to arrange for the financing and the execution of these projects independently.

3. If any of these projects are in Allied Military Government Territory, we shall be glad to review them and assist you in the financing and execution of those projects.

L.A. JERNY,
Lt-Colonel, U.S.,
Director.

C.C. to: Agriculture Subcomm.,
Economic Section

2074

Public Works and Utilities Sub-Commission

159/PWC.

6 Dec. 44

SUBJECT: Benefiche Projects.

TO : Ministry of Public Works
(att: Signor Mizzano)

2. I have your letter of 23th Nov. 1944 in which you advise me that you have under consideration projects amounting to 500 million lire in connection with repair work on various Benefiche projects damaged by the enemy. You also state that this problem has been discussed with the Forest and Agriculture Ministry and with the Agriculture Sub-Commission of A.C. for the necessary approval of A.C.

2. In accordance with instructions issued by the Public Works and Utilities Sub-Commission under date of 18th Nov. 1944, copy of which was sent to the Ministry of Public Works, projects in Italian Government Territory requiring no critical material from Allied sources, will no longer have to be submitted to this Sub-Commission for approval. Therefore, if any of the projects under consideration come within Italian Government Territory, they do not have to be submitted to this Sub-Commission for approval and the Ministry of Public Works will have to arrange for the financing and the execution of these projects independently.

3. If any of these projects are in Allied Military Government Territory, we shall be glad to review them and assist you in the financing and execution of those projects.

c.c. to: Agriculture Subcomm.,
Economic Section

L.A. JENNY,
Lt-Colonel, C.B.,
Director.

2074



Ministero dei Lavori Pubblici

Direzione Generale dei Servizi Tecnici

N. di prot. 1181 Dic.

Allegati N.

Risposta al foglio del

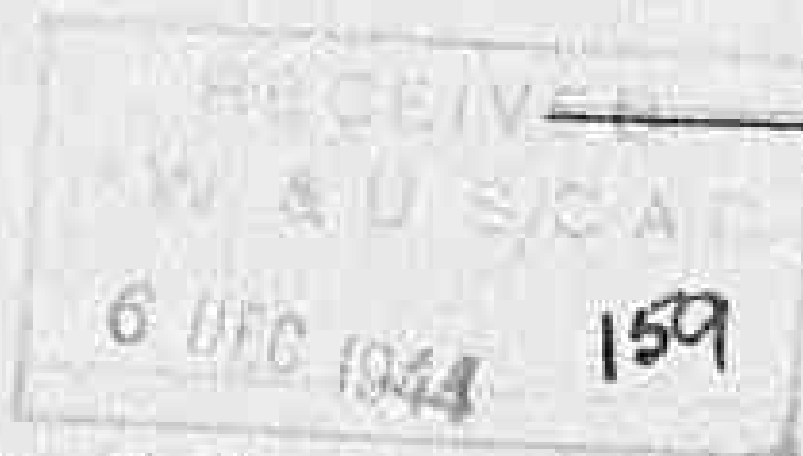
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28 NOV 1944 194

Alla Sottocommissione LL.PP.
e Pubblici Servizi-Commissione
Allegata Controllo AFOS 94-Quartier
Generale

OGGETTO:

= R C M A =

Proposte per lavori di
bonificaTranslation
attached

In relazione alla lettera del 16 ottobre us. A.C.C. 159/P.W.A e in riferimento alla mia nota n. del 5 corr. comunico che tutti i Capi degli uffici Regionali e Compartimentali del Genio Civile, di concerto con gli Ispettori Compartimentali agrari, hanno rassegnato al Ministero dell'Agricoltura e delle Foreste i programmi dei lavori di ripristino di bonifiche danneggiate e ricadenti nelle provincie dell'Italia liberata.

In base a detti programmi è stato possibile concretare un piano di lavori urgenti per l'importo di L. 500 milioni che risulta essere stato già sottoposto agli organi competenti della Commissione Allegata di Controllo dal Ministero dell'Agricoltura e Foreste per la preventiva approvazione.

Il detto programma distingue, per ogni regione e per queste per ogni provincia, le opere che si eseguono in

2078

under the 1940-1941 financial year
concessione da parte dei Consorzi dei proprietari interes-
sati, da quelle che si eseguono direttamente dallo Stato.

Per ognuna delle due categorie le opere stesse sono co-
si suddivise:

- Lavori di manutenzione ordinaria e straordinaria ed inter-
venti antianofelici
- Lavori di ripristino di opere danneggiate o distrutte da
eventi bellici o meteorici
- Lavori di completamento di bonifiche in corso.

I programmi presentati sono semplicemente elencativi e
gli importi in essi previsti per ogni categoria sono stati
desunti, specie per le manutenzioni e gli altri interventi
di carattere continuativo, dai consuntivi del passato eser-
cizio finanziario, convenientemente maggiorati in base al
valore attuale della moneta.

Allorquando saranno presentati i relativi progetti sarà
possibile esprimere un parere di merito sulle opere propo-
ste.

IL DIRETTORE GENERALE

Dejan

G.de CEF/80
6/20/44HEADQUARTERS
ALLIED MILITARY GOVERNMENT
LAZIO UMBRIA REGION
(Engineering Division)
APO 394

7 DEC 1944 159

3 December 1944

TO : HQ. AC. P.W. ✓

SUBJECT : Bonifica in LITTORIA.

IN REPLY QUOTE : R4/ENG/600.2

Reference verbal request from Maj. West Wood.

Herewith for perusal and RETURN the following reports :

- 1) Following request by me in August for a special study of causes of possible flooding of Route 7 and action required to mitigate.
R4/ENG/822 dated 12 September and 20 September.
- 2) Following further request for a fuller study effecting Route 7
R4/ENG/600.2 dated 3 October with Map.
- 3) R4/ENG/600.2 dated 23 October General Progress Report with Map.
- 4) See my monthly Report for October page 12 which gives salient points from these reports. *I have already done so. [Signature]*
- 5) R4/ENG/50.2 dated 1st ~~September~~ ^{December} - Latest Report.

Enclosures.Folio
11A*[Signature]*

Lt. Col. R.E.

Regional Engineer
Lazio Umbria Region AMG.

Lt Col Rapper
For your consideration
Wag 7/12

Folio 16 refers

Reply drafted
24 Dec.

2077

B/P 11/20/44
11/20/44

HL/gb

HEADQUARTERS
ALLIED MILITARY GOVERNMENT
LAZIO-UMBRIA REGION
(Engineering Division)
APO 394

1 December 1944

SUBJECT : Monthly report on Pontifice Work

TO : Regional Engineer, Lazio - Umbria Region, AMG.

FILE No : R4/ERC/90.2

1. During the past month excellent progress has been made on the restoration of the drainage system in the Pontine Marshes. Debris and obstructions have been removed to a great extent from the main channels. The debris from the destroyed bridge at the mouth of Canale Mussolini has not been removed. *(Pipes prevent any work - water prevents)*

2. Work has been started on the diversion channel for the F. Ufente. The channel has been laid out and some earth has been excavated. *(This will take 6 months to do)*

3. The pumping station FONTANI DA BASSO was put in operation but was stopped after two days operating because of lack of current. The area in the vicinity of the pumping station CECACCIO was pumped dry using electric energy which had been authorized by the Provincial Commissioner. The removal of water from this area had first priority because water was removed which would threaten Via Appia. *(Only indirectly do navigation Canal is in danger of it being completely flooded)*

4. At the north end of the navigation canal one temporary earth-and-rock fill dam has been constructed. This will prevent flood flows from the F. AMAZZANO from entering the navigation canal and probably flooding Via Appia. *(Ponte 102580000 - 1000000000)*

5. Temporary wood bridges have now been completed on the main highway between Littoria and Via Appia. These structures will carry the traffic while permanent bridges are being built.

6. Just recently Ing. Grossi of the Pontifica di Littoria returned from a trip to Firenze, Prato, and Siena. He searched for electrical motors and equipment and pumping machinery but was unable to locate any.

HARRY LARSEN
Major, Corps of Engineers.

SUBJECT : Monthly report on Bonifica Work

TO : Regional Engineer, Lazio - Umbria Region, AMG.

FILE No : RM/ENG/80.2

1. During the past month excellent progress has been made on the restoration of the drainage system in the Fontine Marches. Debris and obstructions have been removed to a great extent from the main channels. The debris from the destroyed bridge at the mouth of Canale Mussolini has not been removed. *(This prevents any work - factor for present)*

2. Work has been started on the diversion channel for the P. Ufente. The channel has been laid out and some earth has been excavated. *(This will take 6 months to do)*

3. The pumping station FONTANI DA BASSO was put in operation but was stopped after two days operating because of lack of current. The area in the vicinity of the pumping station CECACCIO was pumped dry using electric energy which had been authorized by the Provincial Commissioner. The removal of water from this area had first priority because water was removed which would threaten Via Appia. *(only indirectly no heavy rain caused in the drainage of the area - flood)*

4. At the north end of the navigation canal one temporary earth-and-rock fill dam has been constructed. This will prevent flood flows from the P. AMAZZO from entering the navigation canal and probably flooding Via Appia. *(P. AMAZZO - 1000 ft. - 1000 ft. in flood)*

5. Temporary wood bridges have now been completed on the main highway between Littoria and Via Appia. These structures will carry the traffic while permanent bridges are being built.

6. Just recently Ing. Grossi of the Bonifica di Littoria returned from a trip to Firenze, Prato, and Siena. He searched for electrical motors and equipment and pumping machinery but was unable to locate any.

HARRY LAW 2074
Major, Corps of Engineers.

Tel: 478200

HWW/bb

HEADQUARTERS ALLIED COMMISSION
APC 394
Public Works and Utilities Sub-Commission

10

Reference: 159/PWU

5 Dec 44

Subject : Flood defences on left side River Elsa,
in Castelflorentino.

To : Regional Commissioner, Toscana Region.
(Attention: Regional Engineer).

1. Reference your letter RVIII/100/PWU/FIR/6, dated 30 Nov 44.
2. One copy of Form AC/1, approving the above named scheme at an estimated cost of Lire 1,600,000, is returned herewith.
3. Please submit Form AC/2, in triplicate, as soon as practicable.

W.M. LAPPER,
Lieut-Colonel,
Chief Electrical Div.

2075

B/E 20 DEC
Considering the very many other schemes that are handled with reference to this Hy. it is deemed not worth pressing for the a/c. forms AC/2. W.M. Lapper - 20/12

Public Works

HC, new

HEADQUARTERS ALLIED COMMISSION

APO 394

ECONOMIC SECTION

RECEIVED

159 6 December 1944

19.03/PS

SUBJECT: Pumps for Bonifichs

TO : FILES

1. At a meeting in Mr. Antolini's office on 5 Dec 44, it was decided as follows:

a. Requisition. A requisition is to be drawn up for transmission through AFHQ as a Category "A" procurement item.

b. The specifications are being drawn up by the PW & U S/C including references to conversations on this subject held by Col. Jenny when he was in Washington.

c. The justification is being prepared by the Agriculture S/C, drawing in material to be prepared by the Public Health S/C, and including any justification from an industrial angle to be secured by Agriculture from the Industry S/C. A working meeting, to wind up this job, is to be held 0900 hours, Thursday 7 Dec, in Col. Jenny's office. The finished requisition will then be submitted to the Economic Section.

d. General Division of Responsibility. It was agreed among the Public Health S/C, the PW & U S/C, the Agriculture S/C, and the Economic Section that the Agriculture S/C should be the "spearhead" for all activities connected with the Bonifichs. It will be the responsibility of the Agriculture S/C to coordinate the activities of other Sub-Commissions in connection with the Bonifichs, both in the regions and at headquarters.

HARLAN CLEVELAND
Executive Director, AF

Distribution:

Brig. Parkinson, Public Health S/C

Chief of Staff

Agriculture S/C, att: Mr. Albenza

PW & U S/C

TO : MILS

1. At a meeting in Mr. Antolini's office on 5 Dec 44, it was decided as follows:

1. Requisition. A requisition is to be drawn up for transmission through AFHQ as a Category "A" procurement item.

a. The specifications are being drawn up by the PA & U S/C including references to conversations on this subject held by Col. Jenny when he was in Washington.

b. The justification is being prepared by the Agriculture S/C, drawing in material to be prepared by the Public Health S/C, and including any justification from an industrial angle to be secured by Agriculture from the Industry S/C. A working meeting, to wind up this job, is to be held 0900 hours, Thursday 7 Dec, in Col. Jenny's office. The finished requisition will then be submitted to the Economic Section.

2. General Assignment of Responsibility. It was agreed among the Public Health S/C, the PA & U S/C, the Agriculture S/C, and the Economic Section that the Agriculture S/C should be the "spearhead" for all activities connected with the Bonifiche. It will be the responsibility of the Agriculture S/C to coordinate the activities of other Sub-Commissions in connection with the Bonifiche, both in the regions and at headquarters.


HARLAN CLEVELAND
Executive Director, ES

Distribution:

Brig. Parkinson, Public Health S/C
Chief of Staff
Agriculture S/C, att: Mr. Albaugh
PA & U S/C
Col. Martino, Room Rec
Mr. Antolini

2074

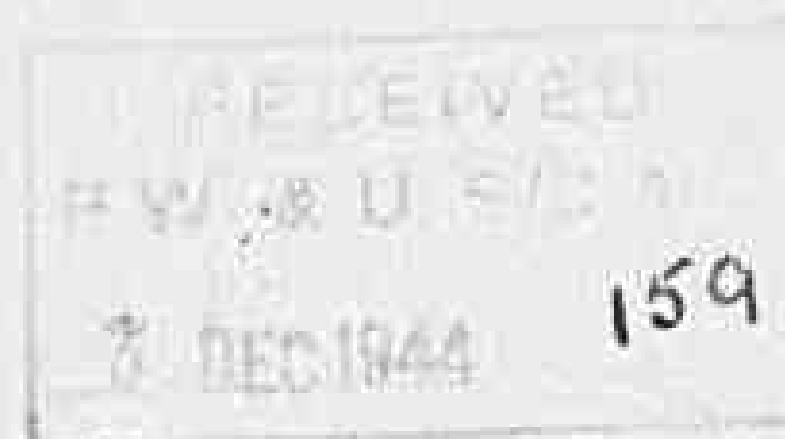
G.de CEF/gb

[1942]

8

HEADQUARTERS
ALLIED MILITARY GOVERNMENT
LAZIO UMBRIA REGION
(Engineering Division)
AFO 394

2 December 1944



TO : HQ. AC. (P.U.) ✓
SUBJECT : BONIFICA - Missing Machinery
IN REPLY QUOTE : RA/ENG/600.2

The result of the search for the Missing Machinery (Motors etc) alleged to be in railway waggons in Florence FISA area is that after a careful search nothing has been found.

The man who gave the information Sig. FALSO had unfortunately been ordered to return to ROME and when the representative of the BONIFICA got to FLORENCE Sig. FALSO had just left.

An endeavour will be made to find him and interview him.

Enclosure: Copy of Translation of Report

Correll
Lt. Col. R.E.
Regional Engineer
Lazio Umbria Region AMG.

Folio 15 refers

*do Col. Gapper hand
Dec 4/44*

*Reply
not later
23 Dec.*

2078

Translated by GS.)

CONSIGLIO DI AMMINISTRAZIONE DI LITTORIA

Rome - Via Bolzano 16

Report of the journey in Tuscany, accomplished for the purpose of searching for the electric machinery, which the Germans took away from the pumping stations of the two "Consorzio dell'Agro Pontino" and that our Falco Emilio of the "Sugar manufacturing Company of Littoria", had said could be found in the neighborhood of Florence.

In the morning of Nov. 18th I went to Prato in order to meet Mr. Falco Emilio, who had given his address at the hotel "Stella d'Italia". The said hotel had been, a few days before, requisitioned by the Allied troops, but it was possible for me to find out that he was stopping in Via San Jacopo 24, where Mr. Landolfi told me, he had departed the previous Sunday and would return that same day or the next.

Meanwhile I decided, following the informations given by Mr. Falco, to start searching in order to gain time.

I went to the station of "Campo di Marte" at Florence where part of the material was supposed to be found, but I observed that there were only a few railroad cars, which were all unloaded. No one of the railway staff was able to give me the least indications concerning the missing machinery and they referred me to the Commandment of Florence, where I would be able to find a list of the remnants of all the stations of the Commandment.

At the Vehicles Circulation Office it was possible for me to speak to the "Chief of the Section, with Cav. Giulini, Chief of the Vehicles movement Office, and with Mr. Lucio Alessandrini, Chief of the Circulation Office.

The Chief of the Section placed at my orders, Mr. Cori, for any possible inspections and gave order to Cav. Giulini to give me all the indications concerning the situation of the materials in stations squares.

Unfortunately the inventories of the remnants in the stations were only then beginning to arrive and in most cases were uncertain. We decided, that same day, to inspect along the Florence-Rome-to-Platone line, where, according to Mr. Falco, some of the loaded cars should be found, partly along the railway and partly at the station of Livorno.

We went to the station of Prato where we met the station master and we visited all the cars in the stations square and in the vicinity of the station. Only two were loaded with woody ma-

In the morning of Nov. 16, I went to Prato in order to meet Mr. Fausto Emilio, who had given his address as the hotel "Hotel Italia". The said hotel had been, a few days before, requisitioned by the Allied troops, but it was possible for me to find out that he was stopping in Via San Jacopo 24, where Mr. Emilio told me, he had departed the previous Sunday and would return that day or the next.

Meanwhile I decided, following the information given by Mr. Fausto, to start searching in order to gain time.

I went to the station of "Cascine di Lince" at Florence where part of the material was supposed to be found, but I observed that there were only a few railroad cars, which were all unloaded. No one of the railway staff was able to give me the least indications concerning the missing machines and they referred me to the Commandment of Florence, where I would be able to find a list of the remnants of all the stations of the Commandment.

At the Vehicles Circulation Office it was possible for me to speak to the Chief of the Section, with Cav. Giulini, Chief of the Vehicles Movement Office, and with Mr. Edoardo Alessandro, Chief of the Circulation Office.

The Chief of the Section placed at my orders, Mr. Mori, for any possible inspections and gave order to Cav. Giulini to give me all the indications concerning the situation of the materials in stations squares.

Unfortunately the inventory of the remnants in the stations were only then beginning to arrive and in most cases were uncertain. We decided, that same day, to inspect along the Florence-Florence line, where, according to Mr. Fausto, some of the signalled cars should be found, partly along the railway and partly at the station of Montale.

We went to the station of Prato where we met the station master and we visited all the cars in the stations square and in the vicinity of the station. Only two were loaded with wood material, all the others were unloaded and most of them semi-demolished; accompanied by the station master of Prato, we went to Montale, inspecting along the railway if cars that were blocked and derailed. They were all empty. At Montale we were able to get detailed information of the situation on the Prato line. No cars containing machinery were signalled in any part of the railroad and no one remembered or having ever seen any.

2073

- 2 -

On the other hand the condition of the railroad, which presented a very careful work of demolition, for which much time must have been spent, left very little hope of finding the missing machines, and even less hope of finding it in such conditions as to be able to utilize it.

In consideration of the failure of this first exploration, in agreement with Mr. Mori, we decided to wait for the return of Mr. Palso, all the more, that even his lady said, he was the only person that could place us on the right trace.

As Mr. Palso did not return earlier on Friday nor on Saturday, on Sunday Nov. 19th I decided to go to the Sugar Manufacturing Company of Granaiolo where he generally went to take orders. There Dr. Rocchetti informed us that Mr. Palso had received from his peremptory order on the precedent Sunday to return to Rome, and hence, to Litoria, because such was the order communicated from the Director of Rome, although Mr. Palso desired to remain longer in Brato.

Dr. Rocchetti informed us that some machineries of the Sugar Manufacturing Company of Litoria was at Prato in a private depot.

It had been brought there from Perugia, where it had been transported by the Germans by means of motor trails, but he had never heard anything of the machineries that we were searching for.

After this I decided, in agreement with the railroad machineries, to search in two directions: one towards Pisa and one towards Siena, along which lines Mr. Palso had stated were part of our machineries, excluding the Florence-Arezzo line, for which the commandant of Florence had received a complete report, in which was excluded the existence of General machineries.

On Monday all the way from Florence to Pisa was searched, interpellating the station masters of Empoli, Pontedera, Cascina, S. Frediano and Pisa; on Tuesday all the way from Florence to Siena was searched, interpellating all the station masters of Foggibonosi, Staggia and Siena. The result was a complete failure, as not even the least trace of the machineries could be found.

From the general inspection it results as follows:

1) The Germans had all the time necessary to transport in Germany everything that could be of any use to them.

2) Anything that is yet on the railways is either useless or insignificant material, either for its quality or for its quantity and it has been left on the way, either because it was not worth while to bring it away or they forgot to destroy it.

3. The bombardments and state of devastation of the railways did not prevent the Germans from bringing away, all that they really wanted to transport in Germany.

4. Everything that, for one reason or other, could not be transported, they did not want to leave in Italy, they carefully de-

As Mr. Falso did not return neither on Friday nor on Saturday, on Sunday Nov. 10th I decided to go to the Sugar manufactory Company of Grandiolo where he usually went to take orders. There Dr. Rocchiatti informed us that Mr. Falso had received from his penitentiary order on the precedent Sunday to return to Rome, and hence, to Liguria, because such was the order communicated from the Director of Rome, although Mr. Falso desired to remain in Liguria in Italy.

Dr. Rocchiatti informed us that some machineries of the Sugar manufactory Company of Idrovia were at Prato in a private depot. It had been brought there from Perugia, where it had been transported by the Germans by means of motor trucks, but he had never heard anything of the machineries that we were searching for.

After this I decided, in agreement with the railroad functionaries, to search in two directions: one towards Pisa and one towards Siena, along which lines Mr. Falso had stated were part of our machineries, excluding the Florence-Fiesole line, for which the Government of Florence had received a complete report, in which was excluded the existence of Concordia machineries.

On Monday all the way from Florence to Pisa was searched, interpellating the station masters of Napoli, Portoferra, Cascina, S. Venediano and Pisa; on Tuesday all the way from Florence to Siena was searched, interpellating all the station masters of Poggibonchi, Staggia and Siena. The result was a complete failure, as not even the least trace of the machineries could be found.

From the general inspection it results as follows:

1) The Germans had all the time necessary to transport in Germany everything that could be of any use to them.

2) Anything that is left on the railways is either useless or insignificant material, either for its quality or for its quantity and it has been left on the way, either because it was not worth while to bring it away or they forgot to destroy it.

3. The bombardments and state of devastation of the railways did not prevent the Germans from bringing away, all that they really wanted to transport in Germany.

4. Everything that, for one reason or other, could not be transported and they did not want to leave in Italy, they carefully destroyed by means of explosives.

In consideration of the above statements I think I can affirm that the searched for machineries have certainly crossed all the Tuscan region and it is to be supposed that by this time they have arrived in Germany, because if they were yet in Tuscany, they must be so concealed that not even the railway staff, they had inspected all the railroads and all the railway squares, has been 207 to

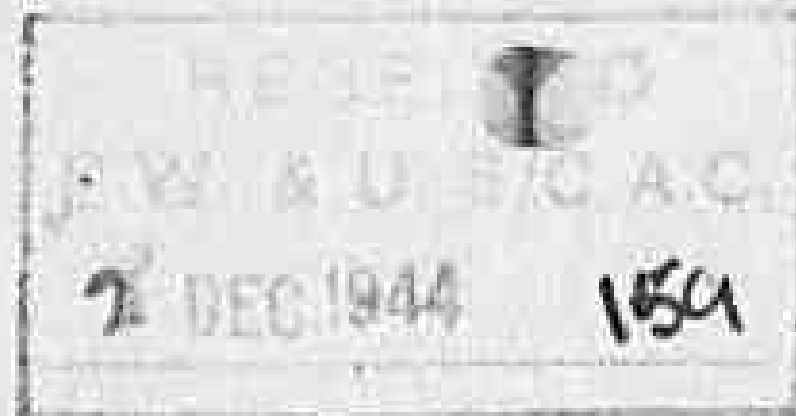
recognize them.

On the other hand the indications, given by Mr. Deleo, were that the said material was yet on the railway cars, a part on the railway from Prato to Florence, a part at the station of Montale, a part at the depot of Campi di Marte in Florence, a part on the railway between Florence and Pisa and a part on the railway between Florence and Siena, therefore, owing to the careful search that has been done, it is not possible that have been overlooked.

The Chief of the V Department.

The Chief of the V Department.

2070



HEADQUARTERS
ALLIED MILITARY GOVERNMENT
TOSCANA REGION
PUBLIC WORKS & UTILITIES DIVISION

RVIII/100/PWU/FIR/6

30-Nov.-44

SUBJECT : Approval of estimate.

TO : Director, Public Works & Utilities Sub-Commission
HQ Allied Commission APO 394

Herewith submitted for your approval are forms ACC/1
from Chief Engineer, Genio Civile Florence, on the following
project :

FIR 108 - Flood defences of 3 Category on
left side Elsa river in Castelfio-
rentino

£. 1.100.000.==

P.S.L. LEE
Major R.E.
Regional Engineer

3 Encl.

File
MK/alb

2/12

10 refs

2069

NOV 1964

189

THE DATA REPORTS

ALLIED MILITARY GOVERNMENT

LACTO VIBRIOLA REGIONI

(Engineering Division)

165 027

18 November 1944

TO : HQ. Region Lazio & Umbria (attention Executive officer(Provinces)).

SUBJECT : Flooding at Muncino

IF REPLY QUOTE : B4/ENC/11(s)

Reference your R/5606 dated 6 November.

1. Flood warning notice was received from Genio Civile about 3 days before the flood arrived. - Maj. Michel immediately warned the O.C. unit at APRODRONE who had time to take avoiding action. - Records show November to be the worst month unlikely to flood in March and April.

2. The flood reached its highest point about midnight Saturday/Sunday at 11 am Sunday when visited by Ing. the responsible Genio Civile floods had not abated and points of outflow were noted. - It was visited about 2 pm by Ing. from Maj. Michel's office when floods had commenced to slightly abated (Maj. Michel was in Hospital) - It was visited by Lt.Col. BOLICK on 6th Monday by which time overflowing had ceased and flooding in town receding.

3. Maj. Michel took the matter up with Genio Civile with a view to diagnosis of possible causes which required considerable study and possible remedies and I held a conference with Capo del Genio Civile Tevere and Maj. Michel on evening of 15th.

4. DIAGNOSIS & ACTION.

(1)	FLOODING WAS FLOODED IN	1937	HEIGHT OF FLOOD AT TONG	
"	"	"	"	16.90
"	"	1941	"	11.70
"	5/XI.	1944	"	10.40

Between ROBE and FIUMICINO since 1941 a bend of the TIBER had been cut out to make the AIRPORT thus increasing speed of flow slightly and causing a tendency to increased flood levels at FIUMICINO. -

This ~~could~~ cannot be corrected and therefore in the event of floods of similar heights recurring will again recur - This may or

Declassified E.O. 12356 Section 3.3/NND No.

TO
 HQ. Region Lazio & Umbria (attention Executive officer(Provinces)).

IN REPLY QUOTE : R4/RMG/11(e)

Reference your R/5626 dated 6 November.

1. Flood warning notice was received from Genio Civile about 3 days before the flood arrived. - Maj. Michel immediately warned the C.C. unit at ARROTHOME who had time to take avoiding action. - Records show November to be the worst month unlikely to flood in March and April.
2. The flood reached its highest point about midnight Saturday/Sunday At 11 am Sunday when visited by Ing. The responsible of Genio Civile floods had not abated and points of outflow were noted. - It was visited about 2 pm by Ing. from Maj. Michel's office when floods had commenced to slightly abated (Maj. Michel was in Hospital) - It was visited by Lt.Col. BOLICK on 6th Monday by which time overflowing had ceased and flooding in town receding.
3. Maj. Michel took the matter up with Genio Civile with a view to diagnosis of possible causes which required considerable study and possible remedies and I held a conference with Capo del Genio Civile Tevere and Maj. Michel on evening of 15th.

4. DIAGNOSTIC ACTION.

(1)	FUMICINE was flooded in	1937	hight of flood at Rome	16.90	m
	"	"	"	11.70	m
	"	1941	"	10.40	m
	"	1944	"		
	5/XI.		"		

Between ROME and FIUMICINO since 1941 a bend of the TIBER had been cut out to make the AIRPORT thus increasing speed of flow slightly and causing a tendency to increased flood levels at FIUMICINO. -

This ~~could~~ cannot be corrected and therefore in the event of
Floods of similar heights recurring flooding will again recur - This may or
may NOT happen.

ACTION. The only possible remedy would be a release spillway 240 ft. separately flooding a less important portion of ground. This will be examined.

1.

- 2 -

(11) A bridge over the TIBER proper near OSTIA was demolished and some debris is in the river. In the opinion of both Mr. Technical Services ROME Comune and FEVERRE engineer this would not cause a backing up of water as far as take off point of FIUMICINO Canal.

ACTION. Genio Civile have been asked to take levels and report definitely and Dir. Technical Services will be asked to remove the debris of his bridge as a precaution.

(14) The flooding at FIUMICINO was NOT caused

(a) by water overflowing higher up and travelling overland - Any escape of water through breaches in banks now under repair would lessen the flood NOT cause it.

(b) by overflowing through gap in wall made to give access to temporary ferry - Sandbags were ready filled and on receipt of flood warning were placed in position and held satisfactorily. -

(1v) The flooding at FIUMICINO took place locally

(a) Backing up through the Sewers which discharge below water level and are NOT provided with tidal flap. -

ACTION. Investigate possibility of fixing Tidal Flaps on exits of all sewers. - This may well be impossible except at low water in summer.

(b) Over the top of the quay. - The water ran over the quay to a depth of about 20 or 30 cm at a point where no damage had occurred to quay.

The quay is damaged in many places by demolition and as a result in some points may be slightly lower than normal.

ACTION. A project was already prepared for repairs to quay wall but will take 3 or 4 months to complete. Genio Civile have been asked to review this with a view to possibly raising the whole quay level by about 50 cm.

This is not however a War Damage item but an improvement. -

(v) Causes that would tend to increase height of floods locally.

(1) The sand bar at mouth normally dredged annually as required has NOT been dredged for sometime as the DREDGER is sunk and all other dredgers in use on higher priority harbours.

The Genio Civile are of opinion that this is NOT a cause as it is some distance beyond the end of the Mole.

ACTION. Genio Civile asked to again take soundings on first calm day - The latest soundings showed about 2 m 40 instead of over 3 m normal.

Unless a dredger can be obtained no action is possible but see (1v).

ACTION. Genio Civile have been asked to take levels and report definitely and Dir. Technical Services will be asked to remove the debris of his bridge as a precaution.

(iii) The flooding at FIUMICINO was NOT caused

(a) by water overflowing higher up and travelling overland - Any escape of water through breaches in banks now under repair would lessen the flood NOT cause it.

(b) by overflowing through gap in wall made to give access to temporary ferry - Sandbags were ready filled and on receipt of flood warning were placed in position and held satisfactorily. -

(iv) The flooding at FIUMICINO took place locally

(a) Backing up through the Sewers which discharge below water level and are NOT provided with tidal flap. -

ACTION. Investigate possibility of fitting Tidal Flaps on exits of all sewers. - This may well be impossible except at low water in summer.

(b) Over the top of the quay. - The water ran over the quay to a depth of about 20 or 30 cm at a point where no damage had occurred to quay.

The quay is damaged in many places by demolition and as a result in some points may be slightly lower than normal.

ACTION. A project was already prepared for repairs to quay wall but will take 3 or 4 months to complete. ^{Nov} Genio Civile have been asked to review this with a view to possibly raising the whole quay level by about 50 cm.

This is not however a War Damage item but an improvement. -

(v) Causes that would tend to increase height of floods locally.

(1) The Sand bar at South normally dredged annually as required has NOT been dredged for sometime as the DREDGER is sunk and all other dredgers in use on higher priority harbours.

The Genio Civile are of opinion that this is NOT a cause as it is some distance beyond the ends of the Moles.

ACTION. Genio Civile asked to again take soundings on first calm day - The latest soundings showed about 2 m 40 instead of over 3 m normal.

Unless a dredger can be obtained no action is possible but see (4f)b.

(2) At the shore end of the mole there are a number of ships sunk (These are all surveyed and located) 2067 ./.

- 3 -

THIS IS MAIN CAUSE. These should have been dealt with as first priority and were so specified in the project approved by Lt.Col. Birchett. Verbal orders were received to give priority to raising small fishing boats (for fishing reasons) Lt. Col. Birchett objected on Technical grounds written instructions were given from HQ. ROMM REGION confirming verbal instructions to raise fishing boats first and orders were obeyed with unfortunate technical results.

ACTION. (a) Concentrate on blowing up these blockships and endeavour to remove debris. - The latest soundings show a passage way of 8 m 40 enough for Fishing boats only. - Some demolition had already been done.

The divers can only work in calm weather and at this Season that is seldom - The proper time has been missed.

(b) Emergency action has been taken by making a hole at base of Mole to let a portion of water escape. - Advisability of enlarging this will be examined but at normal times may result in increased deposit of mud in channel which is designed to be partly self scouring and also perhaps on the bar. -

(c) Lt.Col. BOLICE is contacting Naval Sub Commission to endeavour to obtain additional Plant and Machinery and perhaps take over this portion of work from contractor who is seriously handicapped by lack of plant.

The Capo del Genio Civile is of opinion that the present contracting firm is the best available and is unaware of any other plant as the little available has been in use at higher priority harbours. -

Maj. Michel has arranged to visit LIGNORI and Civitavecchia on 5/6th to follow up information of possible plant. He was in Hospital and is now doing so.

(3) All along the channel opposite the quays are sunken boats all located and surveyed these are being raised or blown as weather and plant permit. After removal of the mainblock (1st) these might prove a subsidiary cause but at present overshadowed by Main Block.

(4) The Swing Bridge over the channel is demolished and debris partly blocking channel. -

On afternoon of 6th November the Engineer estimated the water level above bridge to be about 30 cm higher than the water below. -

ACTION. The debris to be removed.

(5) Raising the quay by a temporary earth wall was discussed with Genio Civile but was not deemed practical as it would take several months to do an amount of digging for centimetres of material.

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ACTION. The debris to be removed.

(5) Raising the quay by a temporary earth wall was discussed with Genio Civile but was not deemed practical as it would take several months to do on account of distance for cartage of material. -

5. To Summary

Whatever action is taken flooding is possible again.

Action to minimum flooding is possible but some of it will take 3 or 4 months. --

The important point to speed up work is to relieve the present Contractor of work for which he has inadequate equipment and endeavour to get help from Navy of more plant suitable to tackle the bigger jobs. --

That is being taken up by Lt.Col. POLICK with Navy Sub Commission.

Curry

Lt.Col. R.E.

Regional Engineer

Lazio Umbria Region ASD.

Copy to:

Lt.Col. POLICK

P.W.(P.C.) ensure action where marked.

→ HQ. Ae (PW) (reference conversation Maj. Westwood)

Wend

2065

Tel. 478200

HWW/ac

HEADQUARTERS ALLIED COMMISSION
APO 394
Public Works and Utilities Sub-Commission

20 Nov. 1944

159/PWU

SUBJECT : Bonifica Pontina - Scheme for
restoration of control gates at
Porta Maggiore.

TO : Regional Commissioner, Lazio-Umbria Region.
(Att: Regional Engineer)

We forward herewith, for the use of the Regional Engineer, two sets of plans, estimate, etc. relating to the above named scheme, which was recently approved as a work of military priority for the safeguarding of Route 7.

By Command of Commodore Stone.


L.A. JENHY,
Lt-Colonel, C.E.,
Director.

Enclosed:
Two folders of documents.

2064

*Condensed Version**File 159**4*RECLAIMED LANDS (BONIFICHE) and IRRIGATED AREAS.

Forecast of requirements of pumping plant for replacement (temporary or permanent) of installations incapacitated by enemy sabotage or by the ravages of war.

29 Aug. 44

There are about 560 "Bonifiche" in Italy. However, for the purpose of this estimate, only the pumping Stations of 76 important low lying areas in the Po valley and in the coastal plain of the northern Adriatic have been considered. The total installed Horse Power in these 860 or so pumping plants is about 155,000, furnished variously by steam, oil and electric power.

In preparing this forecast, the following assumptions have been made: (a) that the installations are likely to be incapacitated to the same degree as has occurred in the "Pontine Marshes", viz. about 90% unworkable or removed; (b) that, of the incapacitated plant, only 50% need be replaced as a matter of comparative urgency.

On the above assumptions, the necessary replacements represent $155,000 \times 0.9 \times 0.5 = 70,000$ HP.

It is recommended that oil power should be adopted for all urgent replacements. It is also recommended that all replacement pumps should be of horizontal pattern (either centrifugal or screw type, according to the working 'head') for installation above ground level and, therefore, equipped with priming apparatus. They should be designed to pass small solids and weeds and they should, of course, be provided with such necessary ancillaries as fuel oil tanks and provision for forced circulation of cooling water.

Whereas the present installations vary in size from 10 to 2,000 Horse Power, it is recommended that urgent replacements be restricted to four standard H.P. ratings and two standard design heads, resulting in eight standard types of pump set.

In accordance with the above assumptions and recommended policy, the estimated requirements are as set out in the following table:-

*Capt P...
Pls file in "Po Valley Bonifiche"*

206?

Aug 8/44

Horse Power	TYPE		NUMBER Required
	Approx. Discharge in Gallons/Minute	Total Head in Feet	
50	13,000	10	57
50	6,500	20	57
100	26,000	10	75
100	13,000	20	75
250	65,000	10	28
250	32,500	20	28
500	130,000	10	35
500	65,000	20	35

This brief Statement is a severe compression of a more comprehensive discourse which, together with the calculations and the statistical analyses on which they were based, is preserved for any necessary future reference or verification.

H.W. WESTWOOD
Major, R.E.

206?

RECLAIMED LANDS (BONIFICHE) AND IRRIGATED AREAS.

Forecast of requirements of pumping plant for replacement (temporary or permanent) of installations incapacitated by enemy sabotage or by the ravages of war.

26 Aug 44

GENERAL.

A review of the Bonifiche in Italy, Sicily and Sardinia has shown that there are about 319 " Compensori", embracing at least 560 separate drainage areas. Unquestionably, however, the most important district agriculturally - and at the same time the most likely to suffer damage at the hands of the enemy - is that of the Po valley and the northern Adriatic coast. Therefore, in the preparation of this forecast, no other reclaimed areas have been considered.

of the Po Valley
In the aforesaid low lying agricultural country, 76 drainage areas have been selected to provide the basis for this estimate. They are indicated on the map which accompanies the relevant calculations. Considering them collectively, it has been estimated from the treatise of Giuseppe Cassinari - that they contain: -

78 steam driven pumps ranging from 10 to 1,000 Horse Power	"	"
327 oil driven pumps	"	10 to 2,000
456 electrically driven pumps	"	12 to 500

Also according to data abstracted from the same treatise, the total Horse Power in use in the areas under review is 156,358 H.P.

A preparatory consideration of the damage done to pumping plant in the Bonifica Pontina and the Bonifica di Littoria has indicated that the installations therein may be regarded as having been incapacitated to the extent of approximately 90 percent. Assuming the same percentage for the purpose of the present estimate, the extent of the envisaged incapacity, therefore, is 0.9 x 156,358 = 140,722 H.P.

The question that next arises is to what extent the incapacitated plant will need to be urgently replaced, bearing in mind (a) that operable plant could in some cases be ~~re-used~~ for longer hours in order to offset the incapacity of damaged installations and (b) that much of the existing plant is probably

of the Po. valley

of the Po. valley

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NOTE ON TYPE OF PLANT REQUIRED.

There is no semblance of standardisation in the existing pumping installations. They vary in size from 10 to 2,000 H.P. They are driven variously by steam, petrol, fuel oil and electricity. The pumps vary in type, depending somewhat upon their age: there are ram pumps, centrifugal pumps and screw pumps; and of the latter two varieties some are horizontal and some vertical. In consideration of these facts, it is evident that exact replacements or spares cannot be prepared in advance without precise knowledge of individual requirements.

In the pumping installations of Pontina and Littoria the working heads (from all causes: suction lift, force lift and friction losses) vary between 5 and 20 feet, and it is thought that this range may be regarded as being applicable to land reclamation works generally, or at least for the purpose of this estimate.

Owing to the probable destruction of electric power lines and generating stations, and also to variations of voltage and frequency in different localities, it is recommended that the prime movers of all replacement plant should be diesel engines.

In view of all the foregoing considerations, it is further recommended - and assumed for the purpose of this estimate - that four standard engine sizes and two standard working heads should be adopted; viz. 50, 100, 250 and 500 H.P.; and 10 feet and 20 feet heads.

With a view to ease and rapidity of installation (avoiding the need for excavation and for the construction or re-construction of dry or wet "wells"), it is also recommended that all pumps should be of the horizontal type (either centrifugal or screw, according to the design head), constructed primarily for use above ground level and, therefore, equipped with suitable apparatus for priming. They should be designed to pass small solids and weeds (rough screening having been adopted in most installations) and should, of course, be equipped with all necessary ancillaries such as fuel oil tanks and provision for forced circulation of cooling water.

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2000

BASIS OF DETAILED ESTIMATE.

Having made an analysis of the existing pumping plants, from data in the treatise of Giuseppe Cassinari, a list was then prepared of their equivalents in terms of the four standard sizes already recommended, so that the H.P. of the equivalents corresponded with the total H.P. of the existing installations. The equivalents were then proportionately reduced in number to produce the 70,000 H.P. previously assumed to be represent the necessary replacements. A further arbitrary but necessary assumption

tion was ^{that} 50% of replacement equipment should be designed for 10 feet 'head' and 50% for 20 feet 'head'.

The forecast of requirements which has been prepared on the basis outlined above is set out in the appended table. The actual analyses and calculations are retained in original manuscript for any necessary future reference or verification.

Horse Power	TYPE		NUMBER Required
	Approx. Discharge in Gallons/Minute	Total Head in Feet	
50	13,000	10	57
50	6,500	20	57
100	26,000	10	75
100	13,000	20	75
250	65,000	10	28
250	32,500	20	28
500	130,000	10	35
500	65,000	20	35

RESTRICTED.

V. SUMMARY

OF I.S.T.D./K/391 (RESTRICTED)

The potentialities for inundation in the North Italian Plain are very serious, owing to the fact that the principal rivers flow for parts of their courses above the level of the plain. The most important fact to be taken into account regarding the potentialities for flooding is the variability of the potentialities from month to month. Flooding would probably be most extensive if carried out in May, June, or November; somewhat less extensive in March, April, July, October, and December, and least extensive in January, February, August, and September. The Po far surpasses all the other rivers of the North Italian Plain as a source of flood water, while the Adige ranks second in this respect. The maximum area of the North Italian Plain which could be inundated under optimum conditions of flooding is indicated approximately in Diagram 4; during the greater part of the year, however, it is important to note that the area which could be inundated would be less, and in the event flooding was attempted during the mid-winter or late summer period of low water on the rivers, the area inundated would be only about 1/2 as great.

Most of the flooding would be affected by breaching the embankments bordering the raised rivers, but in the section of the plain between the lower Po and the lower Reno, there are low, depressed areas drained artificially by pumping stations; here, the inability of water which accumulates through precipitation and infiltration to drain away naturally would lead to partial inundation if the pumping stations were stopped. Such partial inundation may be brought about prior to flooding from the rivers as a means of increasing the extent of the ultimate inundation.

The maximum flood water depths would generally occur within 2 miles of the river embankments, and in the low artificially drained delta areas between the lower Po and the Valli di Comacchio. Under conditions of maximum flooding, the water over much of the area indicated in Diagram 4 would be from 2 to 4 feet deep, and maximum depths would probably be about 12 feet. Depths of over 5 feet could occur only in areas flooded at least in part by the Po. Flood waters in the Venetian and Friuli plains would probably nowhere exceed 4 feet in depth. Most of the main highways and railways in the floodable area indicated in Diagram 4 could be covered by water to depths varying up to 3 feet. With maximum flooding, only buildings, embankments, and some roads and railways would protrude above the flood waters in the floodable area indicated. Except in the artificially drained areas south of the lower Po, the maximum duration of inundation would probably be from four to five weeks in the areas most deeply flooded, and correspondingly less in areas less deeply flooded. If flooding were attempted in mid-winter or late summer, inundation would probably only last from one to two weeks. In the lowlying, artificially drained areas, there would be no run-off of flood waters, once flooding had occurred.

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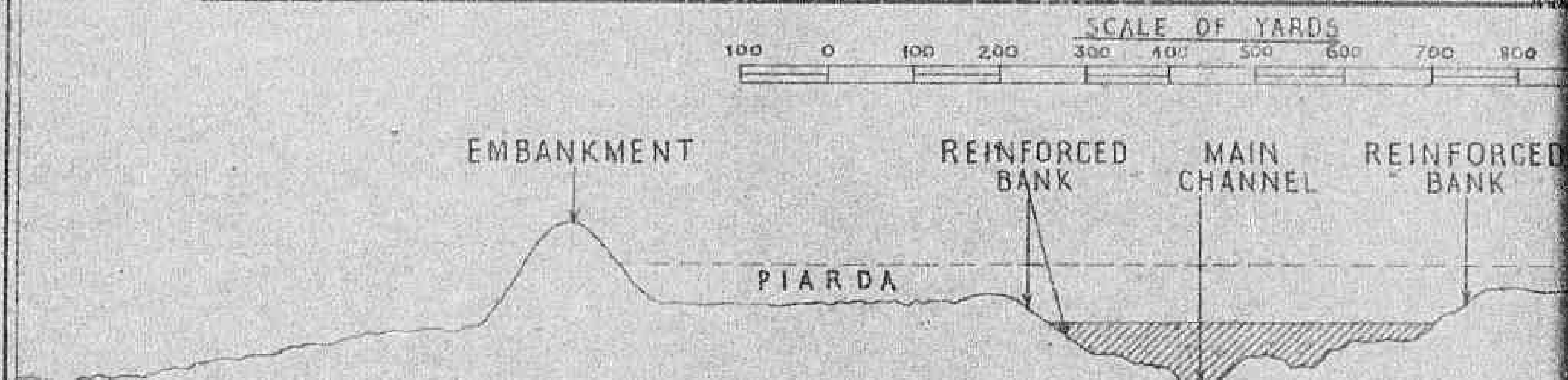
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2038

RESTRICTED.

ISID/K/391

DIAGRAM 3 : CROSS SECTION OF PO



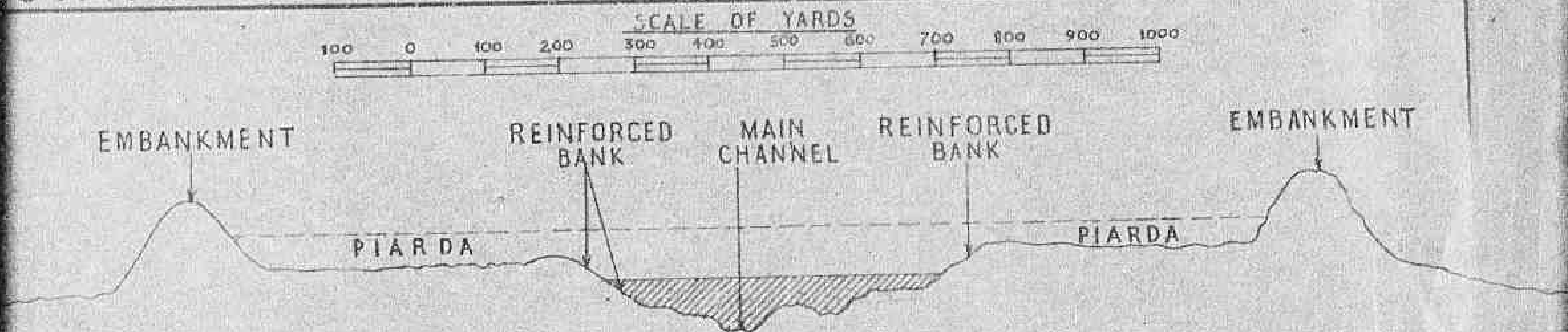
APPROXIMATE WATER LEVEL DURING PERIODS OF MODERATE DISCHARGE—

WATER LEVEL DURING PERIODS OF AVERAGE MAXIMUM DISCHARGE— — —

THE EMBANKMENTS ARE FREQUENTLY CLOSER
RIVER THAN THOSE SHOWN IN THIS DIAGRAM

RESTRICTED.

GRAM 3 : CROSS SECTION OF PO (GENERALIZED)



WATER LEVEL DURING PERIODS OF MODERATE DISCHARGE ————

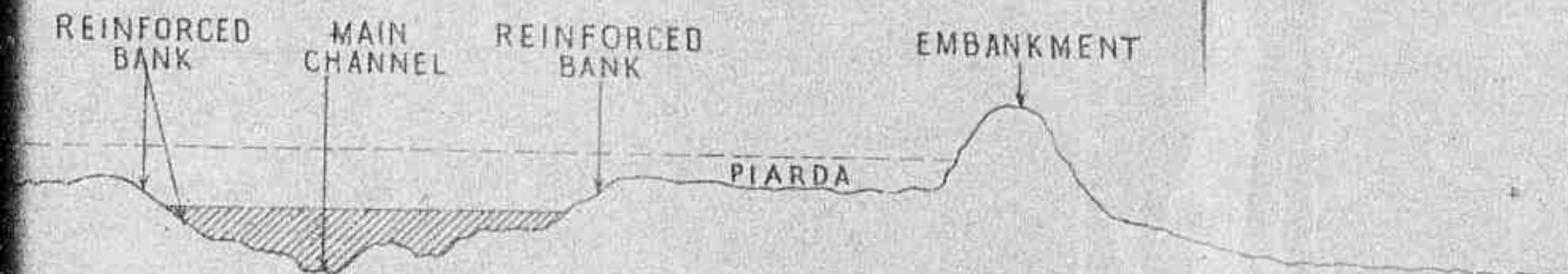
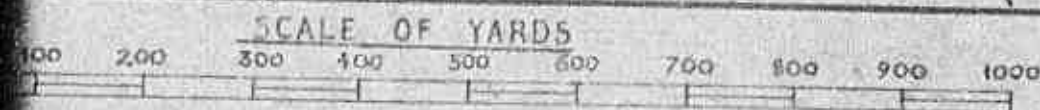
EL DURING PERIODS OF AVERAGE MAXIMUM DISCHARGE ————

THE EMBANKMENTS ARE FREQUENTLY CLOSER TO THE RIVER THAN THOSE SHOWN IN THIS DIAGRAM

RESTRICTED.

5.

CROSS SECTION OF PO (GENERALIZED)



PERIODS OF MODERATE DISCHARGE

AVERAGE MAXIMUM DISCHARGE

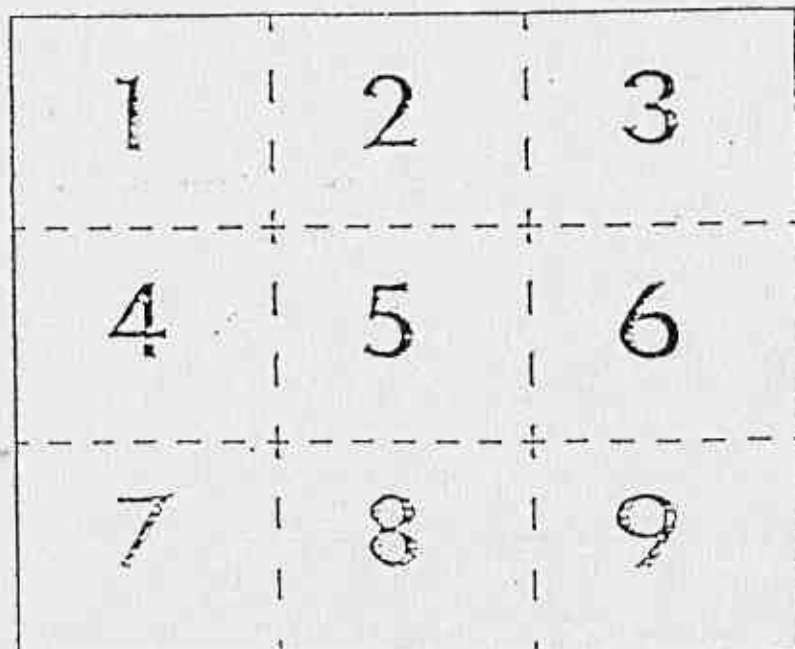
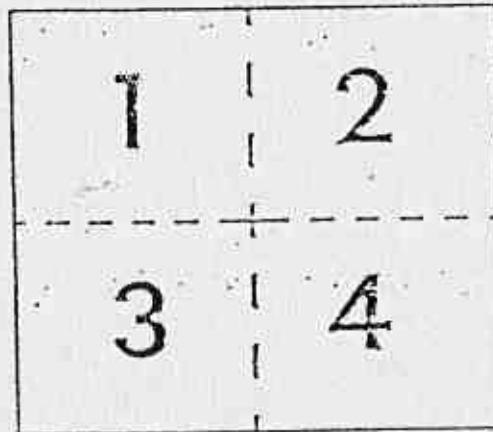
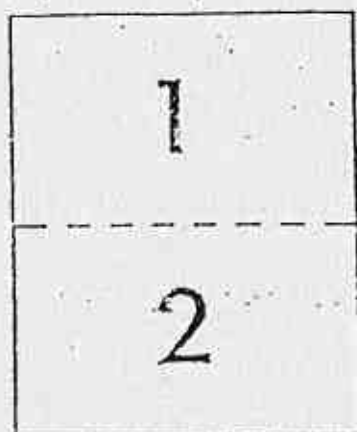
POINTS ARE FREQUENTLY CLOSER TO THE
CLOSE SHOWN IN THIS DIAGRAM



COMPILED AND DRAWN BY INTER-SERVICE TOPOGRAPHICAL DEPARTMENT

MAPS AND CHARTS TOO LARGE TO FILM
ON ONE EXPOSURE ARE FILMED CLOCKWISE
BEGINNING IN THE UPPER LEFT CORNER,
LEFT TO RIGHT, AND TOP TO BOTTOM.

SEE DIAGRAMS BELOW.



RESTRICTED.

I.S.T.D./K/391.

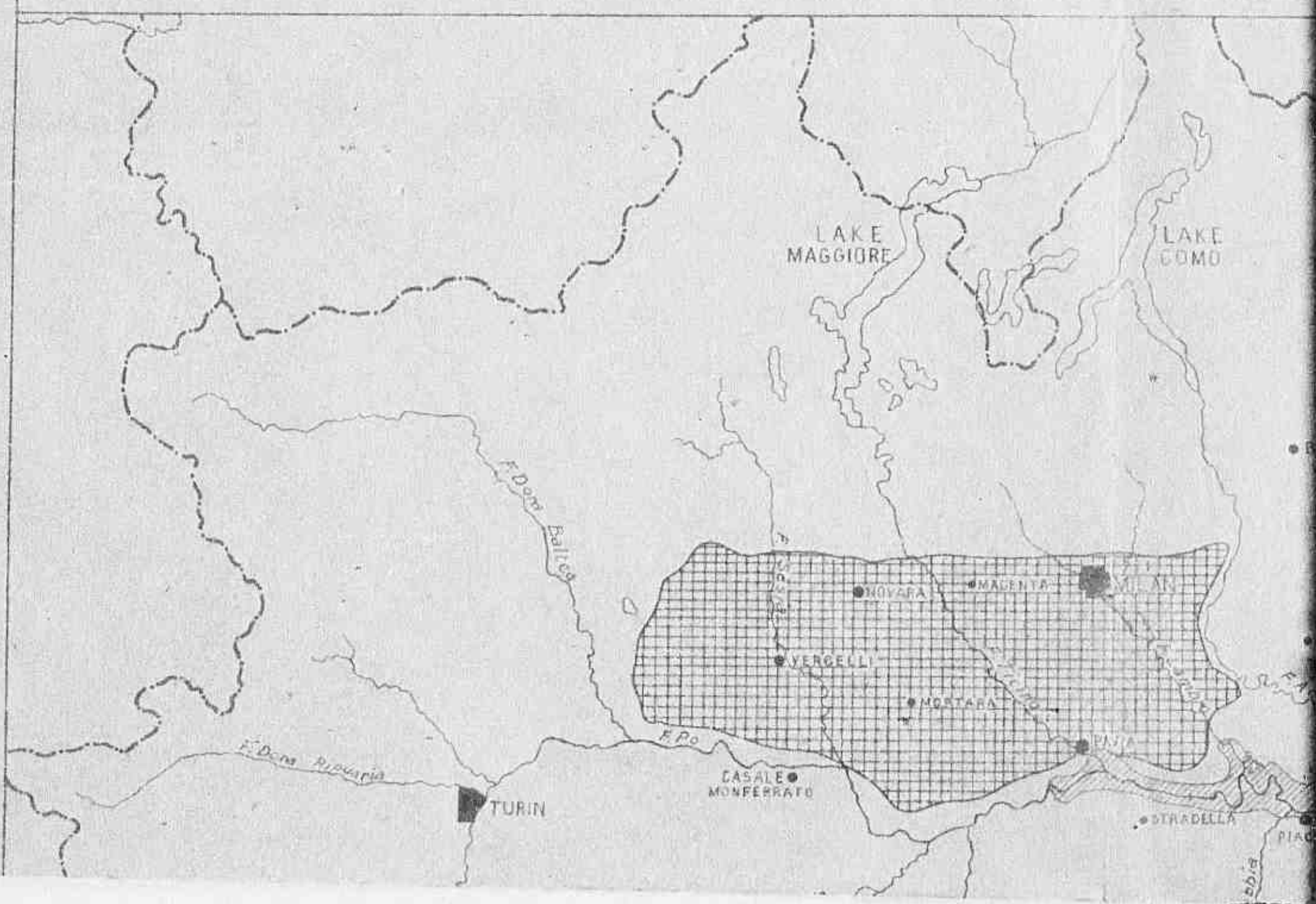
DIAGRAM 4 : POTENTIAL INUN

REFERENCE :

NATIONAL FRONTIER

AREA LIABLE TO BE INUNDATED U
OPTIMUM CONDITIONS FOR DELIBERATE F

SCALE 10 5 0 10

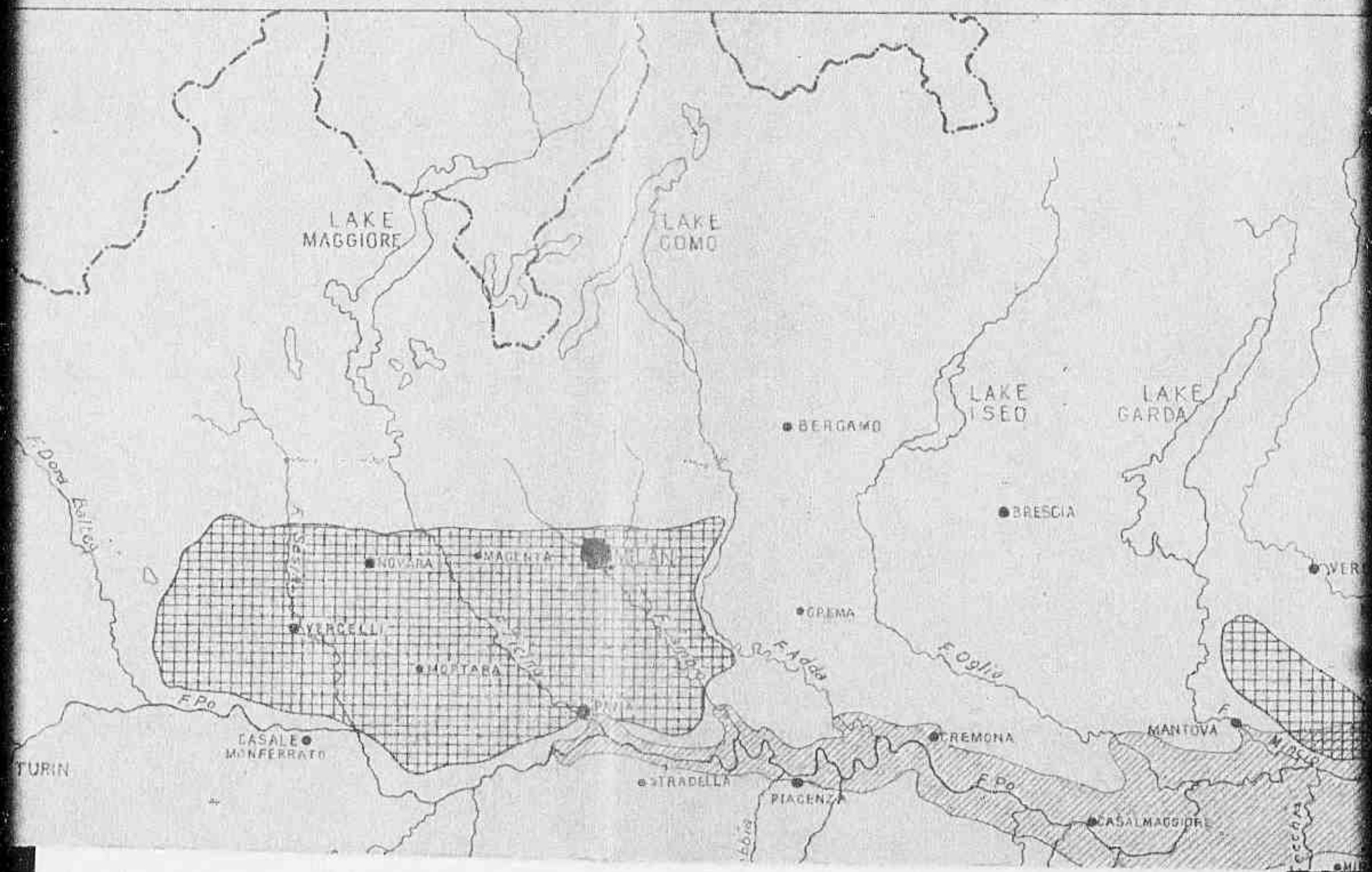


RESTRICTED.

4 : POTENTIAL INUNDATION OF THE

NTIER ——— AREA LIABLE TO BE INUNDATED UNDER OPTIMUM CONDITIONS FOR DELIBERATE FLOODING  AREAS COVERED IN WATER MEADOWS ———

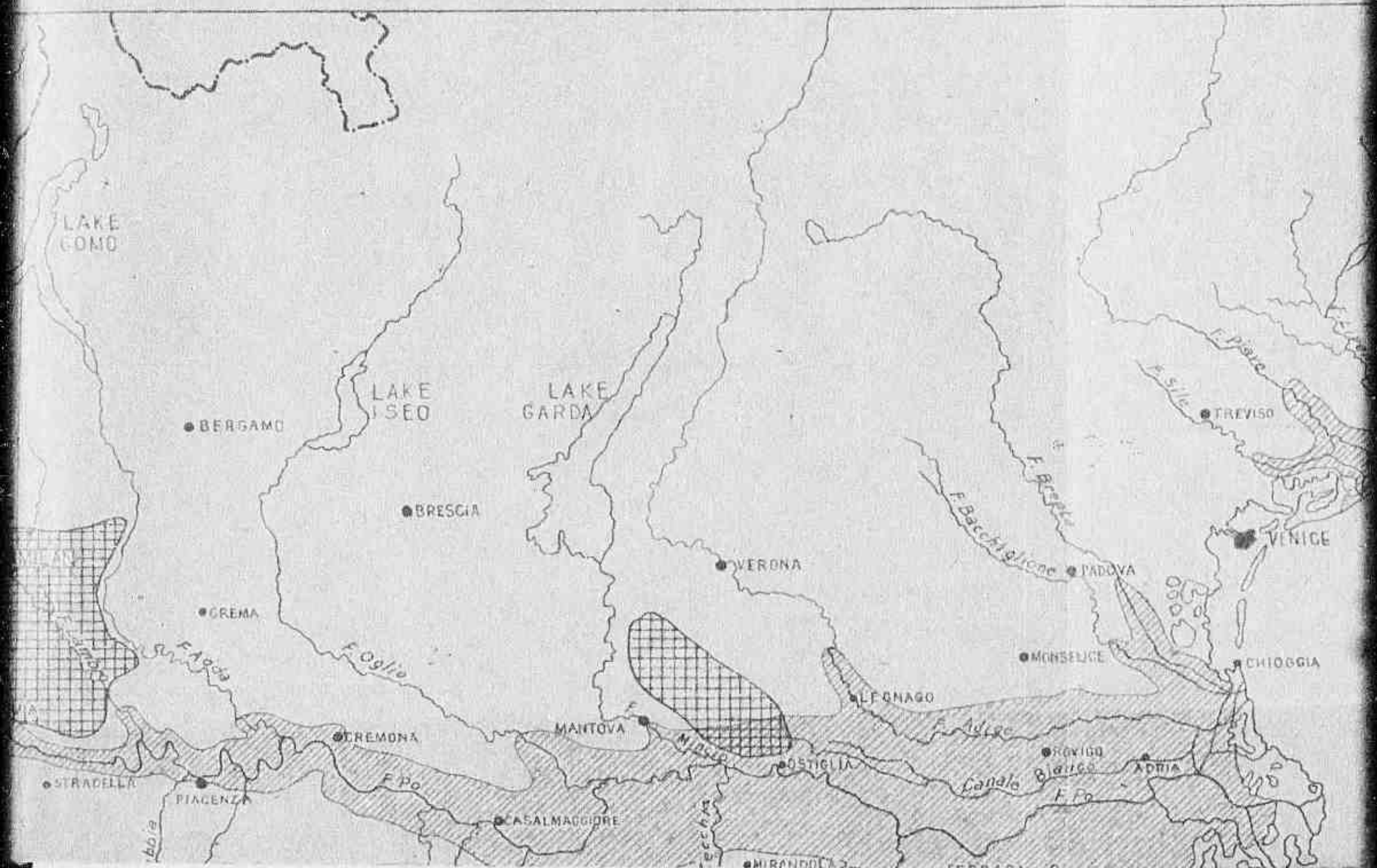
SCALE 10 20 30 40 50 60 70 80



INUNDATION OF THE NORTH ITALIA

UNDATED UNDER DELIBERATE FLOODING  AREAS COVERED IN PART BY PERIODICALLY INUNDATED RICE WATER MEADOWS

0 10 20 30 40 50 60 70 80 90 100 MILES

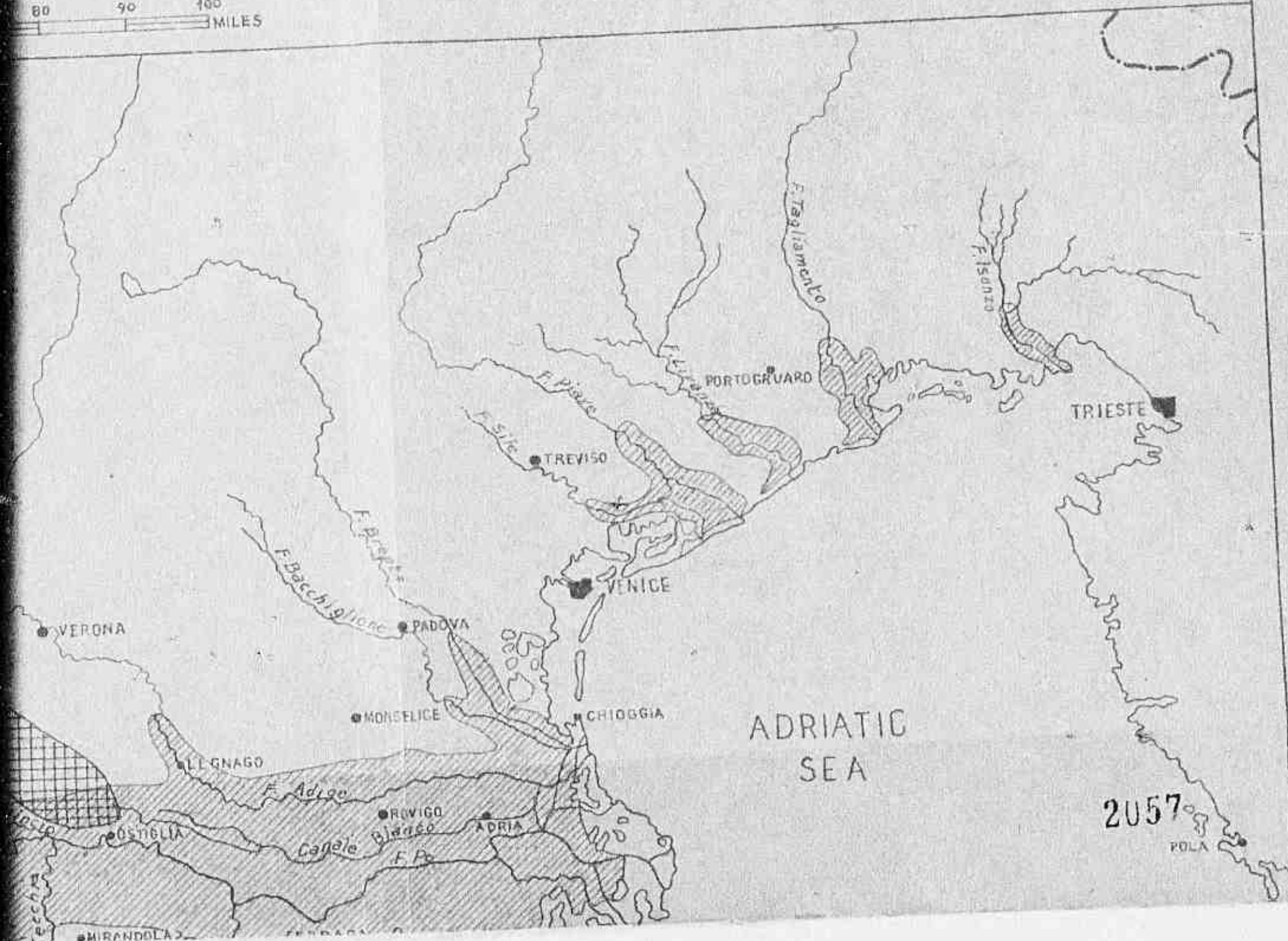


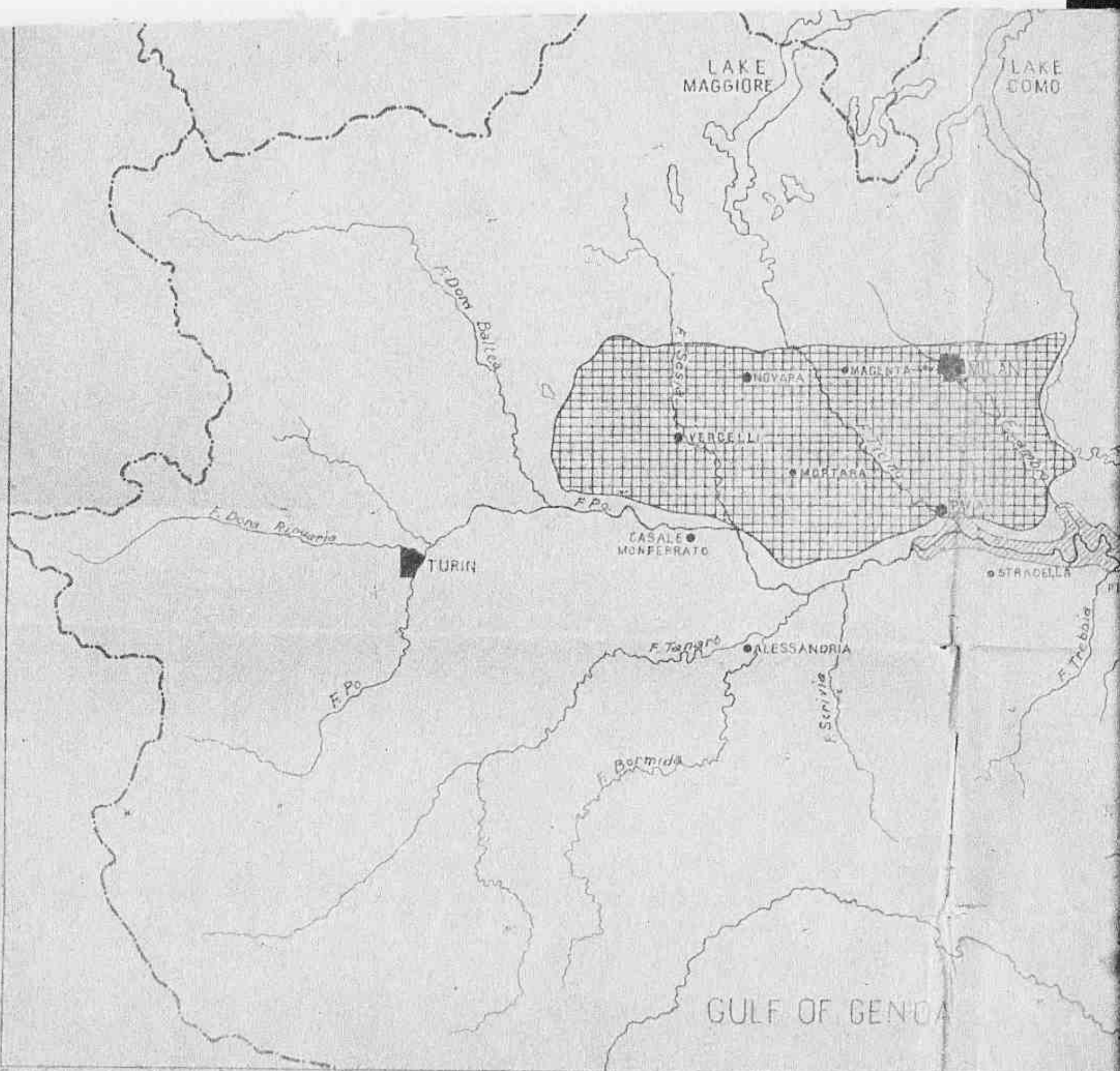
THE NORTH ITALIAN PLAIN

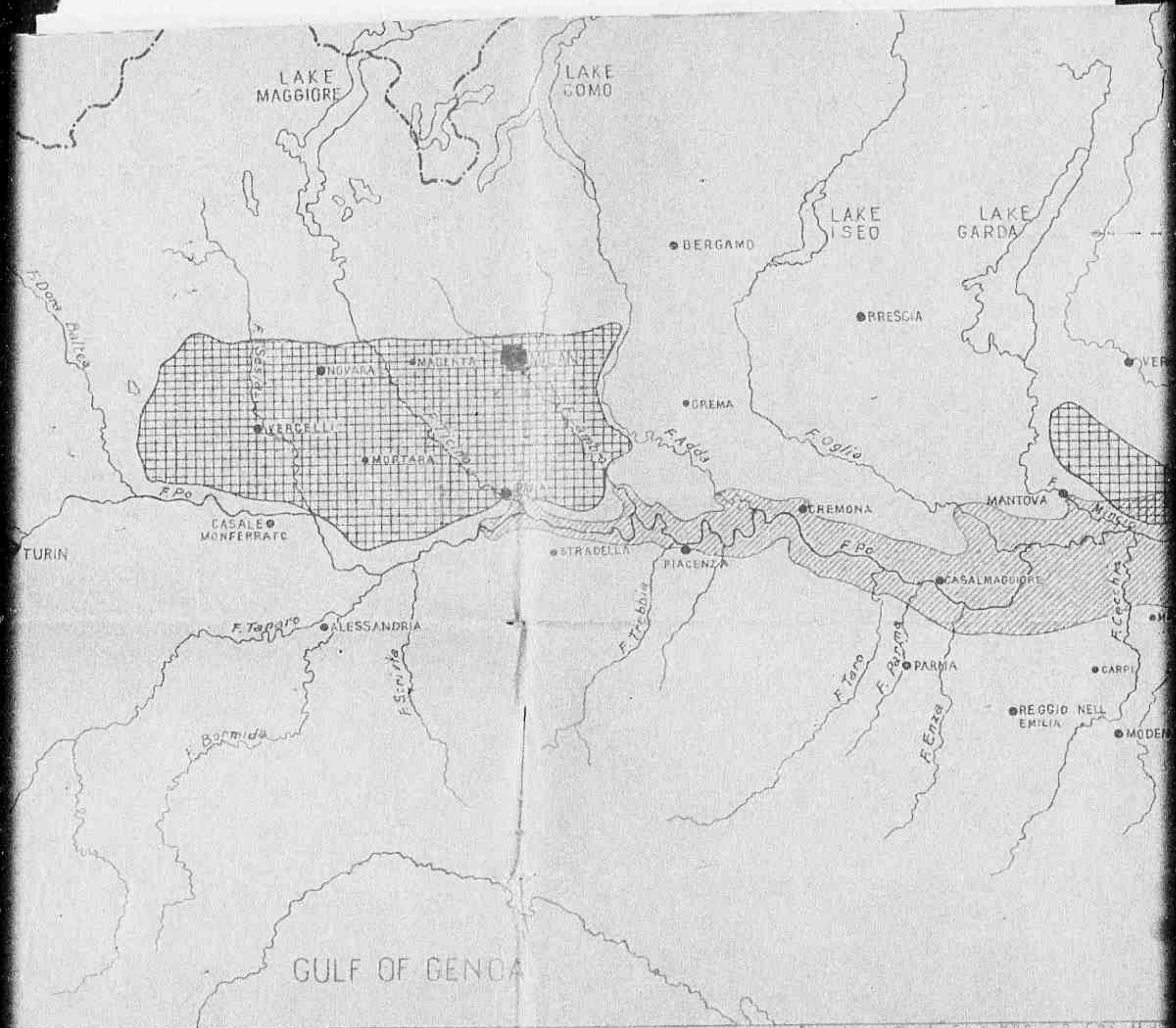
IN PART BY PERIODICALLY INUNDATED RICE FIELDS AND



80 90 100
MILES











Tel. 478200

MEMORANDUM

LAF/ca 3

7 Nov. 44

094/ /PWU.

SUBJECT: Equipment for Northern Italy.

TO : Vice-President, Economic Section.

FROM : P.W. & U. Sub-Commission.

1. A day or two ago I sent you a copy of a letter which I had left with the Authorities in Washington concerning equipment for Northern Italy with a plan to requisition and I asked that the Agriculture Sub-Commission be requested to prepare justification for the pumps for the Po-Valley. I have discussed this question with an officer of the Public Health Sub-Commission and I believe that it is essential that the Public Health Sub-Commission also prepare justification for this equipment from a health and malaria-control standpoint. For this reason I am attaching hereto another copy of the above mentioned letter.

2. This equipment is to be ordered in anticipation of finding large areas of the Po-Valley flooded with pumping apparatus either destroyed or removed, as was the case in the Pontine Marshes. It is my view that we should take an aggressive stand and request such pumps to be sent here in anticipation of finding these areas flooded and make our justification accordingly and not to wait until we arrive on the scene, as it will take many months to manufacture this equipment.

I.A. JENNY,
Lt-Colonel, C.E.,
Director.

Encl.

2056

Tel. 478 00

HW/mc

HEADQUARTERS ALLIED COMMISSION
APO 394
Public Works and Utilities Sub-Commission

2

159/ PWU

9 Nov. 1944

SUBJECT : Cassino Area - River Rapido Scheme.
TO : Regional Commissioner, Lazio-Umbria Region.
(Attention: Regional Engineer).

1. Reference your letter R4/ENG/101-1, dated 4 Nov. 44.
2. One copy of Form ACC/2, approved and countersigned, is returned herewith.

L.A. JENNY,
Lt-Colonel, C.E.,
Director.

2055

AGE/eb

NOV Recd
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cel

HEADQUARTERS
ALLIED MILITARY GOVERNMENT
LAZIO UMBRIA REGION
(Engineering Division)
APC 394

4 November 1944

TO : HQ. AC. (P.W. & U.) Sub-Commission ✓

SUBJECT : Cassino Area - River Rapido scheme

IN REPLY QUOTE : R4/ENG/101.11

1. Reference your letter ACC/159/PWU of 27 October 1944.
2. Herewith forms ACC/2 in triplicate for approval.
Delay in submission is regretted.

Enclosures: 3 ACC/2

A. G. Evans Maj. R.E.
For Regional Engineer
Lazio Umbria Region AMC.

73

2054

24 October 1944.

HEADQUARTERS
ALLIED CONTROL COMMISSION
PUBLIC WORKS AND UTILITIES SUB-COMMISSION
A.P.O. 394

EQUIPMENT FOR NORTHERN ITALY

Northern Italy, or that portion of Italy still in enemy hands, is known as the Industrial North of Italy. Aside from being the industrial heart of Italy, that region:

- a. Produces about 80% of all hydro-electric power in Italy.
- b. Produces from 40 to 90% of all agricultural products grown in Italy depending upon the type of crop.

Northern Italy, therefore, is of the utmost importance from a military as well as a civilian rehabilitation viewpoint. While the war is still on many of the factories in that region must be rehabilitated to produce things needed by the Army. Other factories must be opened to produce essential civilian needs and reduce import tonnages. In addition, every effort must be made to provide work for the vast army of workers thrown out of work because of the destruction of plants and to reduce to a minimum possible uprisings. It will be cheaper and better to provide work for these people than to have to control them with a large army of occupation.

We must assume that the Germans are going to carry out the same scorched earth policy as they pursued in Central Italy and as they are doing elsewhere. We must also assume that they are going to flood some of the large number of "Bonifiche" or drainage projects in the Po Valley region, as they have done in the Pontine Marshes. We must, therefore, be prepared to provide sufficient electrical generating plants to serve the most essential military and civil needs and we must also provide a considerable number of large capacity portable pumping units to drain flooded areas.

In order to save time, it is essential that prompt and positive action be taken now to provide such equipment and not to wait for the receipt of a formal requisition from us which will be prepared as soon as I return to Italy. I am advised that a "Letter of Intent" is all that is needed at this time so as to permit manufacturers to proceed with p265 and plant

- 2 -

preparations, all of which will entail some time. It is requested, therefore, that such a "Letter of Intent" be executed by such agency as will eventually order this equipment and that such Letter of Intent be made out to cover the following equipment:

A - ELECTRICAL GENERATING PLANT

1. Floating Power Plant Unit "A", now in operation at Pensacola and which can be freed by 1 January 1945, capacity 25,000 KW at 50 cycles. This unit to be prepared immediately for the transocean voyage and to be equipped in the same manner as provided in the memorandum prepared by Lt. Col. Leeper for Unit "C" now at Pittsburgh.
2. Small portable Diesel electric generating units of from 300 to 500 KW capacity each at 50 cycles, aggregating a total of 75,000 KW.

B - DIESEL DRIVEN PORTABLE PUMPS

100 complete sets of portable pumps as per plan prepared by the S. Morgan Smith Co., of York, Pa., dated 10/13/44, Drawing Number P-5980, known as type "B".

The Utility Division of the War Production Board is familiar with our requirements and the units and plans mentioned above, also as to permissible variations.

The quantities given above are tentative and may be modified after a further study in Italy.

It is requested that a copy of such Letter of Intent be forwarded to me at above indicated address.

(Sgd)

L.A. JENNY

L.A. Jenny, Lt. Col. C.E.
Director

Copies to:

International Div. CCAC
Foreign Economic Administration
War Production Board

2052

